DISTANCE LEARNER ECOLOGIES OF THE UNIVERSITY OF THE WEST INDIES OPEN CAMPUS PROGRAM

Elizabeth Beaubrun

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ABSTRACT

DISTANCE LEARNER ECOLOGIES
OF THE UNIVERSITY OF THE WEST INDIES
OPEN CAMPUS PROGRAM

ELIZABETH BEAUBRUN

This research project examined the learner ecologies of University of the West Indies (UWI) distance learning program participants in two countries within the regional university's network: Dominica, and Antigua and Barbuda. The descriptive study focused on a period of transition from dual-mode delivery (teleconference and in-person tutorial sessions, alongside print material for independent study) to online course delivery. The purpose of the study was to understand the factors impacting the learner ecologies of a particular distance learning program, and extrapolate from these findings to develop an understanding of distance learner ecologies in the Eastern Caribbean, or economically developing countries in general. Based on factors that the respondents identified as most challenging within their ecologies, the study explored different manifestations of time (in terms of life cycle, the concept of time as a social construct, and in relation to the way time is experienced in the learning environment); space (physical space, social constructs of space, and the concept of social distance); and resources (academic resources, funding, and "human resources" within the learning community).

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E. B.

Chapter I

INTRODUCTION

Distance learning is recognized as a cost-effective means of expanding access to education in economically developing countries,[1] and instructional technology has increasingly facilitated more effective modes of course delivery. An example of such expansion is the distance learning program of the University of the West Indies (UWI). The UWI is the oldest and most well-recognized higher education institution in the Eastern Caribbean, and is comprised of 16 countries and territories in the region. Its physical campuses are located in Jamaica, Barbados, and Trinidad and Tobago. The UWI's distance learning program, called the Open Campus, serves 42 sites[2] across the University's multi-country network. This study focused on distance learning programs in two countries within that network: Dominica and Antigua. Dominica and Antigua were chosen for this study because they share some social and historical similarities, and these points of comparison provide a frame of reference for understanding the learner ecologies of the Open Campus.

[1] "Economically developing country" is used here as a term of convenience to describe the context of the sites in this study. However, the term inappropriately implies support for linear development theories, such as W.W. Rostow's discredited *Stage of Growth* model. The purpose of using the term in this study is to give the reader a sense of the standard of living in the two countries. A more appropriate way to describe these countries' economies comparatively could be in terms of Gross Domestic Product (GDP), which is the market value of products and services produced within a fiscal period, including foreign-owned businesses within a country, or Gross National Product (GNP), which includes overseas businesses owned by a country's nationals. However, as these measurements are based on averages, they assume equal income distribution, which is not a realistic reflection of standards of living. Other ways of comparing standards of living are Gini coefficients, which rate wealth distribution, or Human Development Index (HDI), which ranks countries into four categories ("very high," "high," "medium," and "low") based on factors such as health and education. According to the Human Development Index, Dominica ranks 81 ("high") and Antigua and Barbuda ranks 60 (also "high") among 187 countries. The highest-ranking Caribbean country is Barbados, at 47 ("very high") (United Nations Development Programme, 2011 Human Development Report).

[2] The network consisted of 30 sites in 2007 when data was collected for this study.

Learner ecologies[3] are comprised of factors in students' environments that impact instruction and learning, and this study attempted to examine time, space, and resources in relation to learner ecologies. This descriptive, meta-analytical study focused on a period of transition from dual-mode delivery (teleconference and in-person tutorial sessions, alongside print material) to online course delivery. The study considered how distance learning research challenges the concept of "space" as singular and fixed, and explored the idea that technology is not inherently changing education; rather, our perceptions and conceptualizations about learning shape how instructional technology is experienced in distance learning. The study also discussed distance learning research in relation to the current discourse on globalization, particularly the concept of center-periphery relationships, in the field of comparative education. It attempted to demonstrate how framing the discussion around learner ecologies can support our understanding of distance learning as an educational development issue.

The purpose of the study was to understand the factors impacting the learner ecologies of a particular distance learning program, and extrapolate from these ideas an understanding of distance learner ecologies in the Eastern Caribbean, or economically developing countries overall.

Statement of Purpose

In general, implementation of and access to distance learning have grown significantly in economically developing countries, and are at the center of the comparative education discourse on social and economic development. The Eastern Caribbean's regional university, University of the West Indies (UWI), is one such example of an institution that is experiencing exponential

[3]To clarify, this study addressed the ecology of the students in a distance learning program. Although the higher education institution and its sites within the university network are part of the learners' ecologies, the focus of the study was not the ecology of the institution itself.

growth in the enrollment of its distance learning program. The University network includes 16 Anglophone Caribbean nations and territories, 3 of which have full campuses (Jamaica, Barbados, and Trinidad and Tobago) where students attend classes in person. The countries without full physical campuses are served by the University's distance education program, known as the "Open Campus." The distance education program features "blended learning," which means the combination of more than one mode of course delivery. An example of "blended learning" could be a combination of print media with audiovisual materials such as DVDs.[4] The University of the West Indies' "blended learning" model combines print media (course packets) with technological media (teleconferencing) or in-person study groups (tutorial sessions).

Teleconferencing entails the broadcasting of classes as they take place on the main campuses (Jamaica, Barbados, Trinidad and Tobago) to the 42 Distance Education Centres (DECs) throughout the Open Campus (including off-campus DEC sites in Jamaica, Barbados, and Trinidad and Tobago). The teleconference is a live audio transmission of the class while it is being taught by the professor or lecturer in one of the main campus countries, but it is interactive because all participants, including those at the Open Campus Distance Education Centres, can comment or ask questions using a microphone. In other words, a small number of participants (this study observed 4-25 participants per session) may be gathered (in person) in a classroom at a Distance Education Centre, and simultaneously participate in a class with as many as 600 other students who are dispersed throughout the 42 sites across the Open Campus network.[5] If

[4]Other examples of modes of delivery are audio recordings, phone, radio, and television.

[5]At the time of the study, 600 students were enrolled in the distance program across 30 sites in the Open Campus network.

participants choose to comment over the microphone, their comments are heard by all 600 participants and the instructor.

The University's "blended learning" distance program design also includes on-site tutorials, which involve students meeting face-to-face in a traditional classroom setting with other students in the course. A tutor facilitates a discussion and review of the course material (textbooks and course packets). The tutor is usually a professional who works in a particular field of study and receives a stipend from the Distance Education Centre. While the tutor's role is to facilitate the study groups as well as proctor exams, the distance learning courses are designed, taught, and graded by a University professor or lecturer. The in-person tutorial sessions are meant to supplement independent study and, similar to the teleconference sessions, attendance is not mandatory.

At this time, some Open Campus courses are transitioning from tutorials and teleconferencing, featured in the "blended learning" program design, to entirely online course delivery. This transition will require an adjustment on the part of distance participants who are accustomed to the in-person tutorial and teleconference sessions, which more closely resemble a traditional classroom environment. This study looked at the interstitial period of transition, and the learner ecologies, during this particular point in time. Because some of the Education students are also teachers, the study referred to students in the distance learning program as "participants" to avoid confusion. Although the course instructors and tutors were also participants, this study focused on the students.

This study also explored questions concerning the use of ethnography in the examination of distance learning environments: ethnography describes a unit of study enacted in a particular space and time. However, in this distance learning program, participants are separated from the

instructor and several hundred other classmates, in terms of physical space, but at the same time, meet in person with local classmates. How, then, does ethnography address the fact that distance learning simultaneously takes place in dispersed spaces? Ethnography entails describing a social environment from an emic perspective, and field observation, or participant observation, is one approach to accessing this perspective. Unlike experimental design, the observation, or participant observation, takes place in an authentic environment. Data are gathered from various sources, and the research usually focuses on a small but representative number of cases (Hammersley & Atkinson, 2007, pp. 1-4). The study presented here utilized some of these methodologies, but was not a full ethnographic study by definition. However, the data gleaned information which allowed for a sense of the questions and challenges involved, were ethnographic methodologies to be applied in future research.

Antigua and Dominica were chosen as sites for the research project for several reasons. Prior to this study, the researcher had traveled to Dominica as a non-academic, yet all the while observing the quality of life and quality of education. The researcher's Dominican heritage inspired a personal interest in the country, and allowed her to gain a better understanding from an academic perspective, with the hope of contributing toward Dominica's educational development in future projects. Antigua emerged as an ideal site for the study as the result of support from advisors at Teachers College, Columbia University, and administrators at the Antigua Distance Education Centre, Antigua and Barbuda Union of Teachers (ABUT), and Skidmore College's University Without Walls program. Both countries are unique, yet allow for a general understanding of the context and learner ecologies of the Open Campus network. Dominica is representative of most of the smaller islands in the network, and Antigua is representative of most of the larger countries without physical campuses. The purpose of describing the two

countries and their DEC sites is to provide a general view of the Open Campus sites in the 13 countries without physical campuses, also referred to as the UWI 12+1.

The researcher's interest in the subject of distance learning stems from her experience both as a distance learner and a distance course instructor. These experiences spurred questions concerning concepts in the current discourse on instructional technology, such as "constructivism" and "learner-centered instruction." Coming from an academic background in comparative education, the researcher was interested in how instructional technology can be used to address educational development issues in the Caribbean. She chose the Eastern Caribbean as the location for this study because of the University of the West Indies' unique history as one of the oldest institutional distance learning programs, next to the University of South Africa and the United Kingdom's Open University.

This study was not a formative evaluation of the program, nor was its purpose to identify deficits in the program. The aim of the study was to demonstrate how examining learner ecologies can be useful in understanding questions about distance learning, particularly regarding the students' perspectives. The study also explored how one goes about studying learner ecologies in distance learning environments, considering the challenges of physical and virtual space; in this study, the term "virtual" is used to describe the intangible, dispersed physical classrooms within a teleconference network. Several of the social and economic dimensions of poverty in Dominica and Antigua were raised throughout this study, but these issues are neither solely pertinent to these two countries nor to the Caribbean region. The purpose of this framework was not to criticize Caribbean societies and governments. Rather, comparative education is a field that analyzes how social, economic, and geopolitical issues both directly and indirectly impact learning and educational institutions. This academic field emphasizes that

while these issues are universal, they must be examined in context.

Following a summary of the key research questions, the next section explains the development of higher education in the Eastern Caribbean, and the University of the West Indies, in historical context. It also outlines the geographical context of the study and elaborates on Dominica's and Antigua's social and historical commonalities, which allow for some comparisons and generalizations about the learner ecologies of the other countries within the Open Campus network.

Research Questions

- What are key factors in the learner ecologies of students at the University of the West Indies Distance Education Centres in Dominica, and Antigua and Barbuda? What can we learn about distance learner ecologies in general by examining these factors in terms of time, space, resources, and interactions in a classroom community?
- What transpires in a blended learning environment? How do students perceive their role as learners, and what are their expectations and conceptualizations about the experience or process of "learning"?
- How do students compare face-to-face learning environments with teleconference and online environments? What is important to students as learners when they make these comparisons?

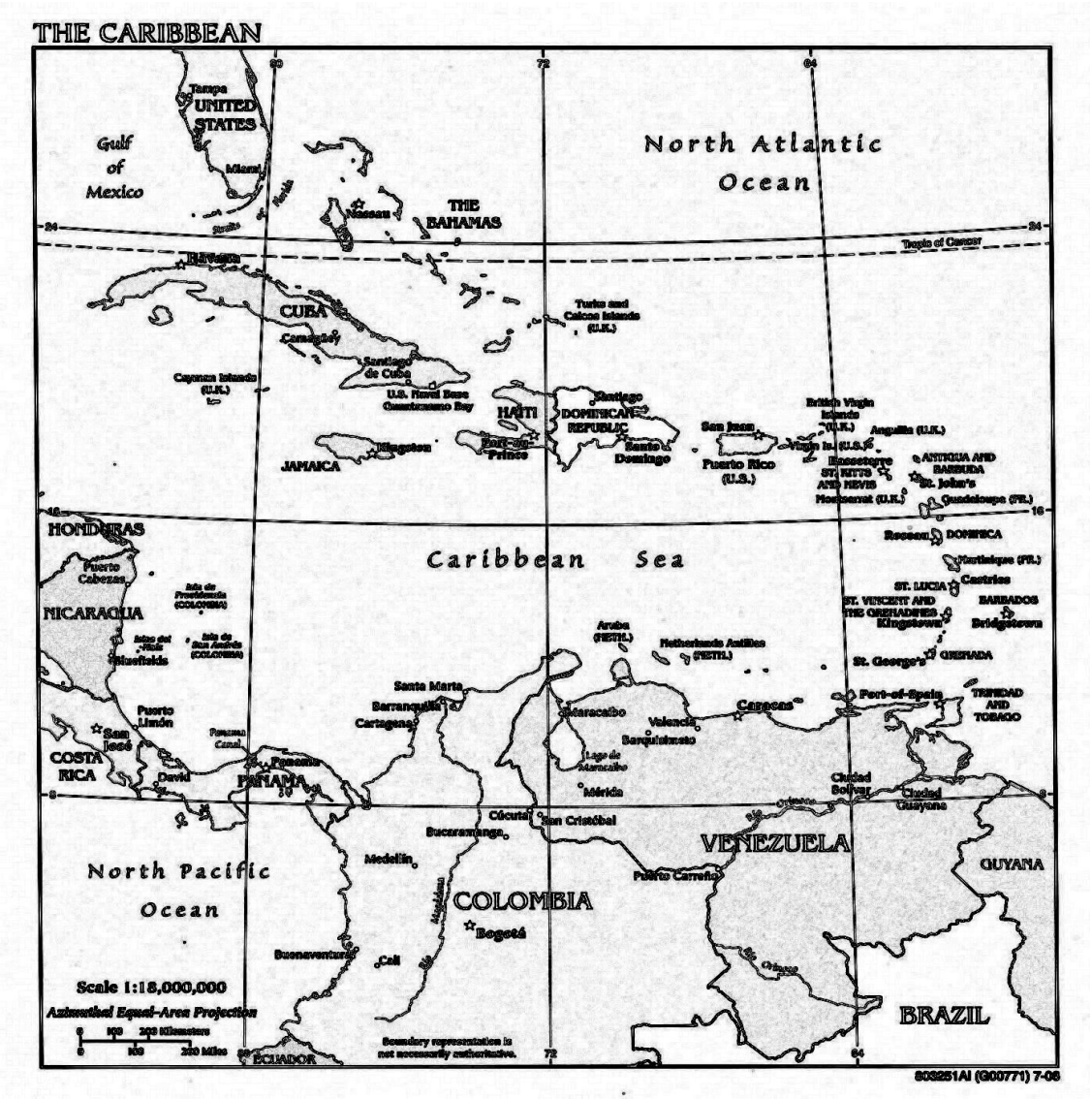

Figure 1. Map of the Caribbean

Source: Public domain image courtesy of the University of Texas Libraries, The University of Texas at Austin. http://www.lib.utexas.edu/maps/

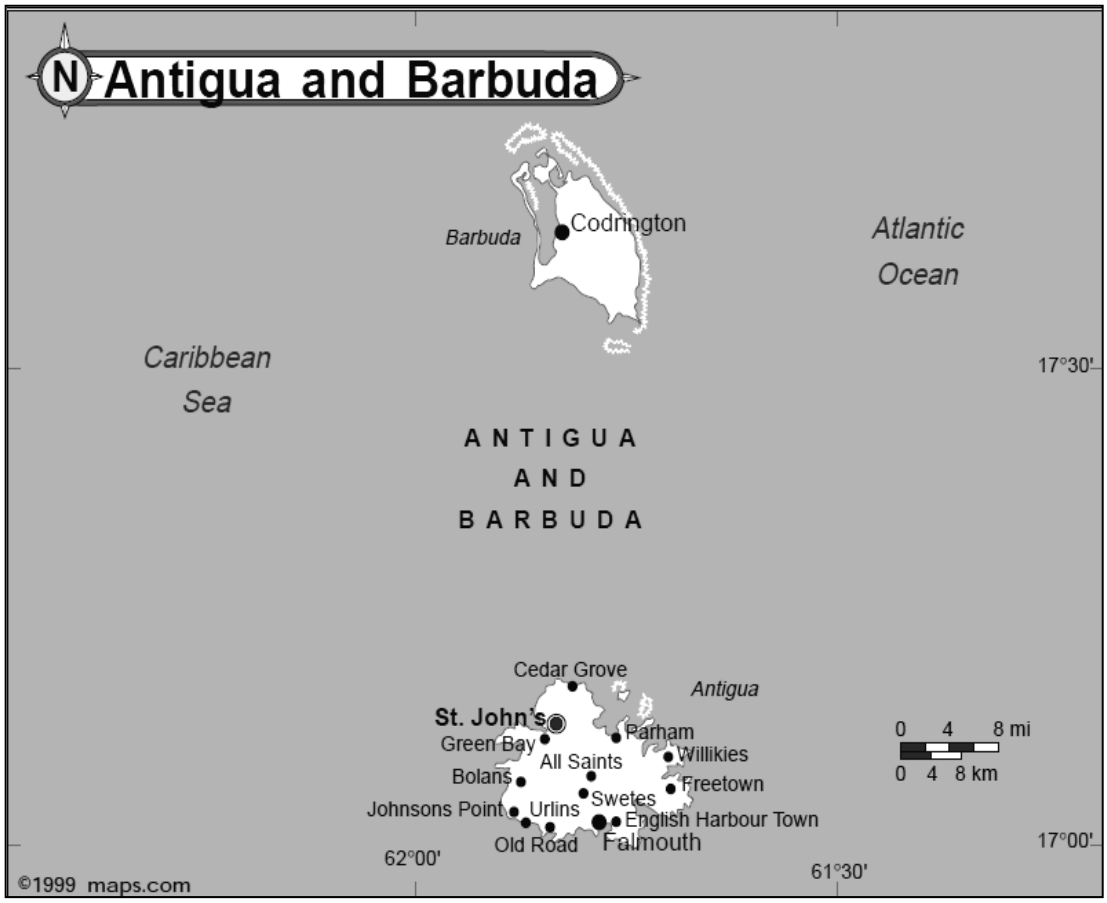

Figure 2. Map of Antigua and Barbuda

Source: Reproduced with copyright permission from www.maps.com

Figure 3. Map of Dominica

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Context of the Study

The Eastern Caribbean

The Caribbean region is a 2,000-mile archipelago southwest of the Gulf of Mexico in the Atlantic Ocean's Caribbean Sea. The region is divided into three geographical areas: the Lucayan Archipelago, the Greater Antilles, and the Lesser Antilles. The Lesser Antilles is comprised of the Leeward Antilles, the Windward Islands, and the Leeward Islands. The Leeward Islands include the United States Virgin Islands, the British Virgin Islands, and 10 independent countries, including the nation of Antigua and Barbuda. Dominica is one of the seven Windward Islands. "Eastern Caribbean" refers to the area spanning the Leeward Islands and the Windward Islands. Nine of these countries are part of the Organization of Eastern Caribbean States, an inter-governmental organization that promotes legal and economic cooperation, and whose members share a common currency (the Eastern Caribbean Dollar).[6]

The University of the West Indies serves the countries in the Eastern Caribbean as a regional institution connecting a network of 16 countries: Anguilla, Antigua and Barbuda, Bahamas, Barbados, Belize, British Virgin Islands, Cayman Islands, Dominica, Grenada, Jamaica, Montserrat, St. Kitts, St. Lucia, St. Vincent, Trinidad and Tobago, and Turks and Caicos.[7] As of 2011, there are 42 sites throughout these countries. The physical campuses and administrative offices are located in Jamaica, Trinidad and Tobago, and Barbados, which are "large" countries in comparison with the other Open Campus countries.[8] Jamaica is geographically the third largest Caribbean island, at 4,243 square miles (approximately the size of the state of Connecticut). Trinidad and Tobago, at 1,980 square miles, is comparable to the

[6] The exception is the British Virgin Islands, an associate member of OECS.
[7] Bermuda became an associate contributing country in the Open Campus network in 2010.
[8] In 2011, Grenada announced plans to build a physical campus.

state of Delaware. In terms of economy, Trinidad and Tobago is one of the most prosperous nations in the region largely because of its petroleum industry; 40% of its 21.2 billion Gross Domestic Product (GDP) is derived from oil and gas revenues.[9] Although Barbados is geographically one of the smallest Caribbean islands (166 square miles, or 2.5 times the size of Washington, D.C.), its GDP of 3.6 billion reflects a more expansive economy and stronger infrastructural development.[10] In comparison, Antigua and Barbuda is similar to Barbados in geographic size (171 square miles), but its GDP is only 1.13 billion. Although Dominica is the largest Windward Island (291 square miles, or four times the size of Washington, D.C.), much of this territory is undeveloped. Its population is only approximately 67,675, and its GDP is only 377 million.

The concept of "small" or "large" is relative, and the countries in the Open Campus network are classified by the United Nations Development Programme as Small Island Developing States (SIDS). SIDS is a particular category in the development discourse, which reflects a high level of vulnerability to global economic shifts and to precarious environmental conditions (such as hurricanes and flooding) due to geographic location.[11] Technically, Jamaica, Trinidad, and Barbados are considered SIDS, but in the context of this discussion concerning the UWI Open Campus network, they are regarded as "large" countries because they have full UWI campuses, are comparatively more industrialized than the other countries in the UWI network, and are comparatively more affluent in terms of economic development. The generalization of Open Campus countries, for the purpose of this study, focuses on the 13 satellite countries in the

[9]The definition of per capita Gross Domestic Product is the value of goods and services produced per year. Jamaica's GDP is 12.07 billion, nearly half that of Trinidad and Tobago, yet its population of 2,868,380 is over twice as large as Trinidad and Tobago's population (1,227, 505).

[10]The Barbados Statistical Service, which conducts the national census, estimates the population is 276,302.

[11]Small Island Developing States is a distinct category among economically developing countries, sharing four characteristics of "vulnerability": a fragile economy, a remote location, insularity, and a predisposition to natural disasters (Kairi, 2007a, Volume I, p. 17).

UWI distance learning program, and uses Antigua and Dominica as prototypes for understanding the conditions and learner ecologies of these Open Campus countries.

Table 1

Basic Comparison of UWI Open Campus Countries

Basic Comparison of UWI Open Campus countries					
Country	Size (sq mi)	Population (thousands)	GNI per capita ($US)	Poverty rate (%)	(Year)
Anguilla	35	14.2	499	23	(2002)
Antigua & Barbuda	171	89.6	10,610	18.3	(2005/06)
Bahamas	5,382	360	21,021	9.3	(2009)
Belize	8,867	322	3,740	43	(2009)
British Virgin Islands	153	20.4	4,554	*	*
Cayman Islands	102	56	60,526	*	*
Dominica	290	67.6	4,960	28.8	(2008/09)
Grenada	183	108	5,560	37.7	(2009)
Montserrat	40	3.6	8,110	*	*
St. Kitts/Nevis	104	50.3	9,980	21.8	(2007/08)
St. Lucia	238	167	4,970	28.8	(2005)
St. Vincent/Grenadines	133	93.9	6,320	30.2	(2007/08)
Turks & Caicos	238	33.2	10,346	*	*
Sources: UNdata, United Nations Data Retrieval System, U.N. Statistics Division 2012; CIA World Factbook, 2012; Country poverty assessment – Dominica, Volume I. Dominica: Reducing poverty in the face of vulnerability (2008/2009)(44); * data not available.					

Each country in the Open Campus network is unique, which makes it challenging to generalize broadly across this spectrum. In terms of population size, Antigua, Bahamas, Belize, Grenada, and St. Lucia are comparably large among the 13 islands. If economic development is considered, Antigua, Bahamas, Cayman Islands, Montserrat, St. Kitts and Nevis, and Turks and Caicos are relatively larger islands, with per capita Gross National Incomes (GNIs) in the tens of thousands.[12] In comparison, Dominica is similar to the smaller islands in the network—Belize, British Virgin Islands, Grenada, St. Lucia, and St. Vincent and Grenadines—which have GNIs in the thousands (Anguilla's GNI is in the hundreds). For the purpose of this study, Antigua

[12]Per capita Gross National Income is the national income in dollars per year, divided by the size of a country's population.

represents a median level of economic and social development among the more economically prosperous of the islands in the Open Campus network, excluding the three campus countries: Jamaica, Trinidad, and Barbados. Dominica represents a median level of economic and social development among the less affluent of the islands in the network. In comparison with other OECS countries, Dominica's poverty rate is considered average.[13] The next section will present a profile of social and economic development in Antigua and Barbuda, and Dominica.

Country Profiles of Antigua and Dominica

Situated in the Lesser Antilles, Antigua and Barbuda is 326 miles south of Puerto Rico. Heading south along the chain of islands following Antigua and Barbuda is the nation of Guadeloupe, then Dominica (182 miles south of Antigua and Barbuda). Antigua and Barbuda is 2.5 times the size of Washington, D.C., and comprised of two islands and an islet: 98% of Antigua and Barbuda's population (approximately 89,612) resides on the island of Antigua, which is 108 square miles, and the remaining 2% of the population resides in Barbuda (located 25 miles north of Antigua). The uninhabited islet of Redonda (1 square mile) is 25 miles southwest of Antigua. The country's population is predominantly Afro-Caribbean, British, Portuguese, Lebanese, and "Syrian."[14] The original Amerindian names for Antigua and Barbuda are *Wadadli* and *Ou'omani*, and the first British settlers arrived in 1632, by way of St. Kitts. During British colonization, sugar was exported from Antigua, and Barbuda was used to harvest other crops to feed the mainland population. In terms of accessibility today, Barbuda has a domestic airport, but there is no passenger-boat or ferry service. At the time of this study, there

[13]Poverty rate is calculated by the percentage of individuals in households where the per capita consumption of each person is below the poverty line. The poverty line is an estimate of the dollar amount needed for a household to meet basic needs. Although poverty line is relative to each country, the poverty rate still allows for a comparative overview across countries (Kairi, 2008/2009, p. 41).

[14]In these countries, "Syrian" is a general term for all people of Middle Eastern ancestry.

were no residents of Barbuda enrolled in the UWI distance learning program. For the purpose of this study, the nation of Antigua and Barbuda is referred to as "Antigua," implying inclusion of both islands.

Dominica is situated between the nations of Martinique and Guadaloupe, and is one-fourth the size of Rhode Island yet is the largest of the Windward Islands.[15] The last Caribbean island to be colonized, it is also among the least industrialized. Forty thousand acres of land are federally preserved. Volcanic craters, rainforests, and cloud forests make up a large part of the terrain, and a substantial rainfall (300 inches per year) contributes to sustaining its natural resources and ecosystems. The first inhabitants were Arawak populations (who were most likely early descendants of the Tainos). Another indigenous Caribbean population, the Kalinago, took control of the island away from the Arawak in the 14th century. The original name, *Wai'tu kubuli* ("tall is her body" in the Kalinago language), refers to the island's mountainous terrain. The first recorded contact with Europeans on Wai'tu kubuli was with French missionaries in the 1640s, who were attempting to proselytize the islanders. The present day Kalinago population of Dominica is generally referred to as "Carib," as the result of a historical inaccuracy: the Taino in other parts of the Caribbean called the Kalingo "Carib," so Spanish explorers arriving in 1493, and other European explorers who followed, began using this name in reference to Dominica's indigenous people (Honychurch, 1975, pp. 20-28).

Similar to Antigua, Dominica was an êntrepot during the 16th-19th century Triangular Trade, but retained the largest indigenous population in the region as a result of the Carib's fierce resistance during early colonization. The rugged landscape also enabled the Carib as well as escaped African slaves (Maroons) to successfully hide within the mountains. Dominica's present

[15]The "Windward Islands" are the six islands comprising the Lesser Antilles. Dominica is sometimes included as part of the Northern chain of islands, the "Leeward Islands," and Antigua is sometimes included as one of the Windward Islands due to proximity.

population is predominantly Afro-Caribbean, Carib (Kalinago), Syrian, and European. English is the official language of both countries and the language of instruction in educational institutions. Antiguans also speak English-based "Leeward Creole." Dominicans speak a French-based "Antillean Creole," and in the northeastern part of the country, an English-based Creole called "*Cocoy*" (or "*Kockoy*"). In the Carib Territory, the indigenous language is taught in an effort to preserve it for future generations.

The linguistic and cultural differences between Antigua and Dominica reflect the historical struggle between French and British colonial governments for ownership of these islands. In particular, throughout the 17th and 18th centuries, Dominica alternated between French and British colonial control. The French colonized the two islands flanking Dominica—Guadeloupe and Martinique—in 1665. This advancement prompted the British Parliament to curtail further expansion of the French and Dutch alliance in the Eastern Caribbean islands. Although the French colonial government captured and fully controlled Antigua by 1666, the French never actually occupied Antigua, and as a result (unlike Dominica) Antigua retained less of a French cultural and linguistic influence.

Once the Treaty of Breda (1667) granted the British colonial government control of Antigua, the struggle between French and British control of Antigua and Barbuda ended. In contrast, throughout the 1600s, the French and British colonial governments vied against each other for control of Dominica, while the indigenous Carib fended off the British and French colonial governments' efforts to occupy the island. In 1748, the Treaty of Aix-la-Chapelle proclaimed Dominica "neutral territory," but the struggle for control continued: the British commandeered Dominica during the Seven Years War (1761), then two years later, it was ceded to the British as part of the Peace of Paris agreement. The French colonial government invaded

Dominica again in 1778, controlling it until 1782 (Cracknell, 1973, p. 60). In 1782, the British won Dominica from the French in the Battle of the Saints[16] and the Treaty of Versailles restored it to the British Crown the following year. However, French influence on Dominica continued: once the French Revolution began in 1789, between 5,000-6,000 White and free colored French royalist refugees immigrated to Dominica, and many remained there after the Revolution ended (Cracknell, 1973, p. 64). The French colonial government's last attempt to invade Dominica was in 1805 (Honychurch, 1975, p. 87). As a result of this history, Dominica retains a blend of French, British, and Afro-Caribbean cultural and linguistic influences as well as influences from Carib and East Asian culture.

Antigua's Economy

Antigua's early economic history began with tobacco production, which sugar replaced in the 17th century when tobacco became less lucrative due to overproduction. The sugar plantations relied on slave labor until emancipation in 1834. Plantations struggled due to competition from sugar beet production, and eventually, two of the country's largest estates monopolized the industry. In 1951, the United Kingdom's Commonwealth Sugar Agreement stabilized sugar-producing economies in the Eastern Caribbean by guaranteeing an export market, but by the 1960s, sugar was no longer a major export, and small-scale peasant farms replaced large sugar plantations (Myers, p. 3). Gradually, a new market emerged as infrastructural development in St. John's, Antigua supported the growth of the tourism industry in the 1960s and 1970s.

Today, Antigua's international airport creates local jobs, as a major hub for Caribbean and Latin American flights and as a service point for aircraft (Kairi, 2007a, Volume I, p. 16). The

[16]British historians refer to it as the "Battle of the Saints" and French historians refer to it as the "Battle of Dominica."

Caribbean Basin Initiative, which was first proposed in 1983, created jobs for Antiguans in apparel manufacturing and electronics assembly. This contributed to significant economic growth, until many transnational companies moved their factories to the Dominican Republic. In the 1990s, Antigua attempted to develop online gaming as part of its services industry, but these efforts were thwarted by U.S. legislators. The strongest sectors of the Antiguan economy are construction, government services, and tourism, with many of the working poor employed in the government services sector (Kairi, 2007a, Volume I, pp. 16-19, pp. 84-85).

According to the most recent Caribbean Development Bank poverty assessment (Kairi, 2007a, 2007b, 2007c), Antigua's poverty line is an annual income of $6,318 XCD[17] (approximately $2,366 USD[18]) (Kairi, 2007a, Volume I, p. xix). The Caribbean Development Bank's poverty assessment noted that most of the working poor have more than one employer, and that the rural poor often engage in multiple forms of livelihood in informal and formal economic sectors (Comitas, 1964; Kairi, 2010a, Volume II, p. 16). Remittances from Antiguans and Dominicans working abroad are one of the means by which lower economic status households sustain themselves, but they are also a significant source of income for higher economic status households as well (Kairi, 2008/2009, p. 36). Since 2007, the dollar amount of annual remittances has remained the same for both countries: $26 million USD entering Dominica and $24 million USD entering Antigua's economy (The Migration and Remittances Factbook 2011, Migration and Remittances Unit, World Bank).

Immigration has also impacted Antigua's and Dominica's economies. Antigua experienced an influx of immigrants from Dominica after the banana industry in the latter country collapsed in the 1980s and early 1990s, and from Montserrat, when the Soufrière Hills

[17] Eastern Caribbean Dollars.
[18] United States Dollars.

volcano erupted in 1995 (Kairi, 2007a, Volume I, p. 30). More recently, poor immigrants from the Dominican Republic have settled in the St. John's Gray's Farm area (Kairi, 2007a, Volume I, p. 25). In Dominica, new Haitian immigrants are settling in Bellevue Chopin, Woodford Hill, and Salisbury (Kairi, 2010a, Volume II, p. 18). As receiving countries, Antigua and Dominica are struggling with the costs involved in extending social services to these new arrivals (Kairi, 2007a, Volume I, p. 66). Immigration has also affected particular employment sectors; for example, many of Antigua's (and to a lesser extent Dominica's) unskilled hotel and restaurant workers are women at the lower end of the economic scale, and recent immigrants are filling these jobs at lower pay rates (Kairi, 2007a, Volume I, pp. 26-30).

In terms of the relationship between the economy and education, among Antiguan students enrolled in school, 26% of boys and 24% of girls are classified as poor or indigent (Kairi, 2007a, Volume I, p. 130). Few rural communities have public libraries, and the "hidden" costs of education create a cycle of under-education.

> At the level of the households there were indications of the ways in which lack of education can contribute to the level of poverty being experienced. The majority, over 70%, of the household heads had primary education, only a quarter had had some level of secondary education, and a similar number were functionally illiterate/had problems with reading and writing. At the same time, children in some of the households were unable to make use of the available opportunities or to access and reap the full benefits of education because of lack of finance, and of their parents' inability to meet the costs of lunch, books, and transportation. (Kairi, 2007a, Volume I, p. 89)

These findings in Antigua are not new in poverty studies, nor are they unique to this country, but they underscore the significance of social distance created by poverty and its impact on education.

Dominica's Economy

Dominica's economic history is different than that of Antigua in the sense that slave plantations

were smaller, and British estates did not expand until the 1760s (Honychurch, 1975, p. 39). Due to cultural and linguistic differences as well as differences in market activity (sugar estates versus coffee estates), British and French settlers in Dominica, respectively, remained socially separate (Cracknell, 1973, pp. 70-71). During the 1778-1782 French occupation, import and export trading was suspended, and many of Dominica's sugar plantations fell into ruin (p. 64). Sugar production ended shortly after the abolition of slavery (1838), and toward the turn of the century, the economy turned to cocoa and citrus production (Honychurch, 1975, p. 157). A series of hurricanes in the 1920s and 1930, however, ruined the economic growth afforded by cocoa and lime export. Unlike Antigua and Trinidad, the advent of World War II had no direct impact on developing infrastructure in Dominica, because the small island did not have an air base. To the contrary, mass immigration strained Dominica's food supply when French refugees from Martinique and Guadeloupe arrived after these two Caribbean countries came under Vichy France's control (Cracknell, 1973, pp. 86-87).

The Dominican economy rebounded in the 1950s and 1960s with banana export (Honychurch, 1975, pp. 157-159). In 1975, the Lomé Convention granted African, Caribbean, and Pacific (ACP) countries preferred status in the banana export market to European Union countries, which guaranteed a market, but essentially forced Dominica's economic dependence on this product. At the time, most Dominican banana farms were owned and operated by families rather than large corporations, but the banana export market was extremely important to the island's economy.

> In the Caribbean, bananas are grown on very small family farms, often on difficult terrain and in relatively small quantities. Caribbean growers had no hope of competing on price with the vast, industrialised, and much more productive plantations of Latin America. Only the privileged access granted by the E.U. [European Union] enabled their banana industries to survive. Yet their economies were very heavily dependent on their banana exports. On three of the four Windward Islands in the Caribbean (Dominica, St. Lucia,

> and St. Vincent and the Grenadines) bananas provided between 50 per cent and 70 per cent of all export earnings, and well over one-third of employment. (Myers, 2004, p. 2)

A series of hurricanes in 1979, and during the1980s and 1990s, adversely impacted the agricultural sector. In response, re-negotiations of the Lomé Convention in 1995[19] were intended to support Dominica's economic recovery, but this effort failed when the Convention expired in 2002 (Kairi, 2010b, Volume III, pp. 25-26).[20] In the 1990s, Dominica experienced growth in the construction sector, signs of stability in agriculture, and toward the end of the decade, an increase in earnings from banana export. In contrast, tourism and manufacturing declined. Manufacturing created job growth for a short period, but similar to Antigua, several transnational manufacturing plants moved out of Dominica when their duty-free statuses expired (Kairi, 2008/2009, pp. 28-29).

Public utilities are universally available in Dominica, but not affordable to the poorest members of the population. Half of Dominica's electricity is generated using hydroelectric technology, and the island is nearly energy self-sufficient (Kairi, 2008/2009, p. 28). Yet, these projects have resulted in lower water tables at major sites such as Trafalgar Falls, Fresh Water Lake, and Titou Gorge (Williams, 1971, p. 5).

According to the Caribbean Development Bank (Kairi, 2008/2009), 39% of Dominicans live in poverty; in Dominica, a family of two requires a minimum of $1,194 XCD per month (approximately $442 USD) to live above the poverty line (Kairi, 2008/2009, pp. 41-42). The

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[19] Renegotiations permitted Dominica a quota of 71,000 tons of duty-free bananas, with an excess tariff much lower than that of other ACP countries (Myers, 2004, p. 82).

[20] Former U.S. president William Clinton's administration played a major role in the collapse of Dominica's banana export, severely disabling the island's economy. The Lomé Convention was set to expire in 2002, but the Clinton administration filed a complaint with the World Trade Organization (WTO) against the European Union for allegedly discriminating against Chiquita Banana Corporation, a major contributor to the Democratic Party (Myers, 2004, p. 82). In 1997, Chiquita already had 50% of the E.U. market, while the Caribbean and Pacific islands combined had only 8% of the E.U. market, and ACP producers supplied only 2.5% of the global market. Yet, WTO ruled in favor of the United States and Chiquita (Louisy, 2001, p. 429).

Caribbean Development Bank's poverty assessment surmised that the quality of life for Dominica's poor is less abject and less visible than other islands, due to their utilizing the abundance of natural resources available in the rural and coastal areas (Kairi, 2008/2009, pp. 17-18). However, waste disposal and deforestation are now growing problems in these poor coastal and rural communities as a result of overuse (Kairi, 2010a, Volume II, p. 22).

Regarding education, many of the participants in the poverty assessment study (Kairi, 2008/2009) attributed their inability to transcend poverty to their poor education. The study cited that over 26% of male heads-of-household and over 23% of female heads-of-household surveyed had not received education beyond primary school (p. xvi). Ninety percent of the adults who participated in the poverty assessment survey identified themselves as illiterate, yet did not participate in adult literacy programs, and the study addressed the scarcity of adult literacy programs in poor communities such as Tarish Pitt and Fond St. Jean (Kairi, 2010a, Volume II, pp. 26, 176). As the national rate of literacy in Dominica is 94% (and 98% in Antigua[21]), the poverty assessment findings reflect the severity and concentration of illiteracy among the poorest segment of the population.

Participants in the poverty assessment study raised the issue of "hidden" costs to education, such as transportation and material resources. According to the survey, 74% of primary and secondary students reported that they do not have access to free textbooks, and 56% said they could not afford these materials (Kairi, 2008/2009, p. 94). As expected, this poverty assessment study also demonstrated that school enrollment increased proportionately with socio-economic status. When the researchers divided their sample of respondents into economic quintiles and looked at school enrollment rates among age cohorts, results showed a large

[21] Source: UNdata, United Nations Data Retrieval System, U.N. Statistics Division 2012.

disparity in enrollment between young people (ages 15-19 and 20-24) in the lowest economic quintiles, in contrast to their cohorts in the highest economic quintiles (Kairi, 2008/2009, p. 89). This finding illustrates the limited access to post-secondary education among young Dominicans in poorer communities.

Internet Access in Dominica and Antigua

In terms of access to technology, 37.6% of Dominicans and 75% of Antiguans are identified as "Internet users" which, according to the International Telecommunications Union's definition, means "having access" to the Internet in some form.[22] According to the most recent population census (Dominica Ministry of Finance, Statistics Division, 2001), 12.6% of Dominican households have at least one computer and 8.5% of Dominican households have Internet connection, while 27% of homes in Antigua and Barbuda have personal computers (International Telecommunication Union, 2009). Although ownership of personal computers and Internet access is still not widespread, the application of instructional technology to distance learning is quickly becoming a significant part of the landscape in Caribbean education as a cost-effective way of delivering teacher training and professional development, and will enable a greater number of Caribbean nationals to complete higher levels of education.

Profiles of the Capital Cities

St. John's, Antigua

Antigua's level of economic and infrastructural development today is tied to the manner in which it was exploited during British colonization. Like Dominica's capital, Roseau, St. John's port was active during the Triangular Trade[23] (approximately 1564-1865). Unlike

[22] Source: World Bank, World Development Indicators, 2008.

[23] Triangular Trade refers to the transatlantic slave trade involving West Africa, the Caribbean/North America, and Europe.

Dominica,[24] substantial sugar plantations were established in Antigua, but these plantations were not developed to the same extent as the grand estate plantations of Barbados and Jamaica. Sugar export collapsed during the second half of the 19th century with the introduction of beet sugar in the United Kingdom, rendering colonies in the Caribbean less economically viable (Myers, 2004, p. 3). After manumission in the British West Indian territories (1834), the formerly enslaved remained entrapped in poverty through systems similar to share-cropping in the post-Civil War United States. High interest rates on materials bought on credit, such as seeds and farming tools, ensnared sharecroppers into a cycle of poverty. Social uprisings swept Antigua in the 1930s, but initiatives to improve conditions in the British Caribbean colonies were abandoned once World War II began. During this period, United States military bases brought revenue to Antigua, particularly the St. John's area, significantly impacting infrastructural development and the consumer economy.

The World Cricket Tournament in 2006 revitalized parts of St. John's, when construction projects improved streets and sidewalks in anticipation of the large number of tourists expected to descend upon the small city. (Modernizing the sports stadium also created temporary jobs for Antiguans in the formal and informal sectors; for example, Antiguan construction workers migrated for work on a cyclical basis between St. John's and the Bronx, New York.) On a typical weekday, the sidewalks of St. John's bustle with men and women in business attire, alongside fellow Antiguans in well-worn street clothes. Some of the well-attired men and women endure standstill traffic during rush hour in new cars and sports utility vehicles, while older women wait at bus stops. Unlike Trinidad, Antigua and Dominica do not have petroleum reserves, and depend on importing most of their energy resources. The cost of gasoline in Antigua is $12.10 XCD

[24] Coffee and sugar were Dominica's main exports during the late 1700s, but Dominica was never a major part of the sugar trade during this period, and without internal roadways, it was too difficult to transport sugar cane over the mountainous terrain (Cracknell, 1973, p. 84).

(approximately $4.48 USD) per gallon.

The port of St. John's attracts crowds of shoppers and tourists from the cruise ships. "Local" businesses, such as roti shops, are mixed in with incongruently named transnational franchises such as "Kentucky Fried Chicken" and "Subway." Aged buildings stand alongside new storefronts with the exception of Heritage Quay, which is a section of new, high-end duty-free shops. Internet cafes have become equally popularized by tourists as well as locals, and regular users span a wide spectrum of ages. Some of these Internet cafes offer computer classes for children and adults. Although only 27% of homes have computers, cellular phones are ubiquitous.

As one travels further away from the city center, some of the residential streets are unpaved, or riddled with potholes. Pedestrian travel during rainfall becomes difficult because of the mud and uncovered gutters gaping between the streets and sidewalks. The surrounding neighborhoods of St. John's vary: some are lined with airy, large houses with manicured gardens, while other neighborhoods feature rows of neat, modest homes built closely together and roosters wandering the small yards. There are also neighborhoods lined with shacks and shanties, where some residents collect car parts or scrap metal for recycling.

Roseau, Dominica

Roseau is also a port city, but visibly less prosperous than St. John's. The section of the city where the cruise ships dock displays a handful of fashionable stores and restaurants. There are also many small, locally-owned shops with very little inventory on the shelves, and an open market where women sell local produce, including citrus, bananas, avocado, tania, and dasheen. In recent years, as the Haitian population has grown, the outdoor market has become an economic niche for Haitian immigrants.

Like St. John's, there are a few transnational franchises such as *Digicel*, an Irish-owned mobile phone network provider. Cars on the roads are conspicuously older than those of Antigua, and in the city, noticeably more people ride public buses or walk. Many of the businesses in Roseau are small shops selling items such as clothing, dry goods, and music compact discs, and there are two modestly stocked grocery stores in the city center. Poverty is not obvious (partly because begging is illegal), but neither is conspicuous material consumption. In the capital, it is not unusual to see buildings neglected by absentee owners to the point where trees grow through the windows and straight through roofs. Built in 1905, the Dominica public library is one of the capital's historical landmarks; however, the size and structure of the building are too outdated to accommodate the growing number of students using the facility today, as well as the public's growing demand for computer access. It is also symbolic of how economically developing countries still struggle with the high cost of print material: St. John's Public Library collection houses only 50,000 volumes, and Dominica's public library in Roseau holds only 7,500 volumes.

Schooling in Antigua and Dominica

Antigua's educational system consists of 56 primary schools (30 public and 26 private) and 13 secondary schools (9 public and 4 private). Dominica's school system is comprised of 63 primary schools (53 government-owned, 5 government-assisted, and 5 private) and 15 secondary schools (6 government-owned, 8 government-assisted, and 1 private). School attrition rates are a challenging issue for both Antigua and Dominica: Only 36% of Dominican boys and girls aged 15-19 are enrolled in secondary school, compared with 64% in Antigua (Antigua and Barbuda Ministry of Finance, 2001; Dominica Ministry of Finance, 2001).[25] Yet, Dominica's school enrollment is still considered high for an economically developing country (Kairi, 2008/2009, p.

[25] Compulsory education in the Commonwealth Caribbean is up to age 16.

87). The percentage of secondary school students who pass the Common Entrance Examination (CXC), which determines eligibility to enter tertiary education, has risen to 73.4% in Dominica. However, the number of students applying to take the exam has decreased. In Antigua, the pass rate for the CXC was also 74% in 2010 (an increase from 68% in 2009).

Tertiary institutions in Dominica include Teacher Training College, Clifton Dupigny College (which offers Associate's degrees in Applied Arts and Science, Applied Science, and certification in technical vocations), Dominica State College, and Ross Medical School (a United States-based institution with a physical campus in Dominica). Dominica State College, established in 2002, offers degrees in Nursing/Health Sciences, Education, Technical Arts and Sciences, and Technology.

Antigua's tertiary institutions are Antigua State College, Antigua and Barbuda International Institute of Technology, University of Health Sciences, American University of Antigua (which includes colleges of Medicine, Arts and Sciences, and Veterinary Medicine), Cornwall International College, and University of Puerto Rico, as well as several vocational colleges and business schools. There are also several foreign-based distance learning programs, mainly offered by institutions in the United States, United Kingdom, and Canada.

Distance learning expands opportunities for workers in and around St. John's, and whether the transition to online study will increase participation among rural dwellers will depend upon the availability and cost of telecommunications in rural areas. Although online instruction, in theory, overcomes the barrier of physical distance, there are still socio-economic barriers (or "social distances")[26] to consider. The current student population at the Antigua and Dominica DECs

[26]Sociologist Robert Park (1924) defined "social distance" as "the grades and degrees of understanding and intimacy which characterize personal and social relations" (p. 339). Park expanded on this concept, based on the work of George Simmel, with whom he studied at the University of Berlin in 1900. Simmel addressed normative social distance in *The Stranger* (1908). Durkheim wrote about normative social distance in *The Elementary Forms of*

represent neither the wealthiest nor the poorest members of these countries. The social context of educational development and its implications for schooling in contemporary Antigua and Dominica are further discussed in Chapter II (Literature Review).

Higher Education in the Caribbean and the UWI Distance Learning Program

The UWI began as the University College of the West Indies (UCWI) in Mona, Jamaica in 1948, approximately at the same time as other Asquith Colleges in Nigeria, Ghana, Rhodesia, and Sudan. The Asquith Colleges were part of a plan to create "university colleges" throughout British territories in Africa and the Caribbean. In 1953, the British government formed a Colonial Higher Education Commission, chaired by Justice Cyril Asquith, which researched the state of education in these areas. In 1945, the group, known as the Asquith Commission, issued a report recommending that the British government create university colleges affiliated with established degree-granting British universities. Primarily the University of London, and a few other British institutions, administered the university colleges: They determined admissions, syllabi, and exam schedules, and conferred degrees and certifications aligned with their own standards. The government created an Inter-University Council for Higher Education in the Colonies to monitor the alignment of these standards, and the project was funded by the Colonial Development and Welfare Acts of 1940 and 1950. The liberal arts colleges created during this period are Khartoum University College in Sudan (1947); University College of the West Indies in Kingston, Jamaica (1948); University of Ibadan in Nigeria (1948); University College of Ghana (1948); Makerere University College in Uganda (1949); and University of Rhodesia and Nyasaland (1955) (Howe,

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the Religious Life (1912), and applied the concept in analyzing disparities between socio-economic classes in France during the Renaissance (Lukes, 1972, p. 383). Starting around 1925, Emory S. Bogardus applied this concept to developing the Bogardus Social Distance rating scale, which measures affective social distance: a subject's sympathy for members of different social groups, at varying degrees of relation to the subject. Granovetter (*The Strength of Weak Ties*, 1983) and others have applied the concept of interactive social distance to the study of virtual social networks.

2000, pp. 13-14; Lulat, 2005, pp. 227-228; Nwauwa, 1997, pp. 134-155)

As with the other Asquith institutions, enrollment in the UCWI in the 1940s and 1950s was limited not only because the majority of prospective students required scholarships, but also because entry requirements were prohibitively unrealistic for most secondary school graduates in colonial British territories; the quality of primary and secondary education available to most students was insufficient to pass the college entrance examinations. Sir James Irvine, Chairman of the Committee that recommended the establishment of the University College of the West Indies,[27] stressed the need for a regional educational policy, and advocated that the purpose of a regional tertiary institution should be neither solely to meet local labor needs, nor to encourage social stratification. Jamaican scholar and Vice-Chancellor Emeritus of the UWI, Rex Nettleford[28] (1993), alluded to this vision of Caribbean social and economic development in connection with regional identity:

> [The University of the West Indies'] presence has indeed made a significant difference to the quality of cultural and intellectual life in the Commonwealth Caribbean as part of the decolonising process. The teaching departments, research institutes, and the outreach (extra-mural) activities have together produced a network of activities which facilitate the sharing of new and old knowledge and have inspired new perspectives about Caribbean society and development despite the much articulated complaint by political leaders from some of the contributing territories that the manpower supply from the institution is inadequate if not all but useless. The West Indian University, admittedly, is also vulnerable on the question of its unspectacular display of intellectual daring in terms of the early restructuring of curricula and a bold and immediate thrust in new areas of inquiry contingent on third world development needs. But for all its 'Oxbridge' orientation and certain clear Eurocentric biases, the University of the West Indies has been a major instrument of indigenous cultural change in the region, raising levels of consciousness among its graduates and teachers—an achievement which has in turn fed

[27] The Irvine Committee was a sub-committee of the Asquith Commission that focused on the "West Indies." James Irvine was Vice-Chancellor of Scotland's University of St. Andrews.

[28] The late Hon. Ralston Milton "Rex" Nettleford was an esteemed scholar, historian, social critic, and artist. Trained in political science at Oxford, Nettleford co-authored the groundbreaking study *The Rastafari Movement in Kingston Jamaica* with M.G. Smith and Roy Augier in 1961. He also authored *Mirror, Mirror: Identity, Race and Protest in Jamaica* (1969) and *Manley and the New Jamaica* (1971). Nettleford served as Vice-Chancellor of the UWI from 1996-2004, as well as an advisor to Caribbean leaders and international organizations. As an accomplished dancer and choreographer, he founded the National Dance Theatre of Jamaica in 1962, and was a leading proponent of Caribbean arts and culture.

> not only rivers of rhetoric but also programmes of action in vital areas of the region's life. (Nettleford, 1993, p.136)

Lawrence Carrington,[29] Director of UWI's School of Continuing Studies from 1996 to 2007, was instrumental in the development of the Open Campus. His reflections in *The University of the West Indies: A Caribbean Response to the Challenge of Change* (1990) address the University's historical role in supporting regional identity:

> [It is essential] that the UWI has as one of its focuses the development of West Indianness, rather than simply stating a set of academic service purposes; it should state some kind of ideal and work towards it.... If you look at the region now and examine who are the political figures and who are the functionaries who support these political figures, a significant proportion of them have gone through UWI. Now, at the moment there is a level of cross-region conversation that is possible among these civil servants, where one is talking to a former colleague from Taylor Hall, when he speaks from Antigua to Barbados on a particular matter related to a given Ministry. I fear we are going to lose this within the next few years when these people are replaced by others who might also have gone through UWI, but who did not have that linkage across the region. Now, if you find that happening at a time when the economic necessities push the politicians into increasingly isolationist positions, you are going to destroy a number of interactions that have become a part of what made CARICOM[30] possible. People forget that the existence of CARICOM is in a sense an outcome of UWI thinking. (Sherlock & Nettleford, 1990, pp. 130-131)

The University is regarded as a benchmark of regional autonomy and Caribbean scholarship. Among its alumnae are eight Caribbean prime ministers as well as the Nobel prize-winning economist Sir Arthur Lewis, Islamic scholar Imran Hosein, historian and political activist Walter Rodney (*How Europe Underdeveloped Africa*, 1973), and Nobel prize-winning poet Derek Walcott. In addition to a full campus, Barbados houses the University of the West

[29] Professor Lawrence Carrington was also Pro-Vice-Chancellor of the Board of Non-Campus Countries and Distance Education from 2000 to 2007. Carrington is a well-known authority and Professor Emeritus of Creole linguistics. An alum of University College of London (B.A.) and University of the West Indies (Ph.D.), he was awarded an honorary doctorate from University of Bern, Switzerland.

[30] The Caribbean Community (CARICOM) is an organization that coordinates economic integration and development between its 15 members, which includes Antigua and Dominica. Commonwealth Caribbean leaders transformed the former Caribbean Free Trade Association (CARIFTA) of 1965-1973 into a Common Market and established CARICOM in 1972/1973, which allowed free movement of labor and capital, and greater coordination of economic policies. The treaty establishing CARICOM was revised in 1982 in order to transform the Common Market into a single market and economy.

Indies Distance Education Centre (UWIDEC),[31] which coordinates distance education services to the Open Campus countries that have DECs rather than full campuses: Anguilla, Antigua and Barbuda, Bahamas, Belize, British Virgin Islands, Cayman Islands, Dominica, Grenada, Montserrat, St. Kitts/Nevis, St. Lucia, St. Vincent and the Grenadines, and Turks and Caicos. These were formerly called "Non-Campus Countries" (NCCs), and "UWI 12+1."

The earliest form of distance learning in terms of outreach was the University's radio programs. The Radio Education Unit, which began in Jamaica in 1958, recorded programs for schools and teacher training programs, and distributed programs to public radio stations. In 1973, the "Challenge Scheme," offered through the Faculty of Social Sciences, created a means of training mid-level government employees in the Non-Campus Countries. The government employees were to study independently using print material, but the program was redesigned when administrators discovered that participants were unable to pass the exams without additional support. The UWI, therefore, created study centers with face-to-face tutors in the Non-Campus Countries (NCCs). Distance learning through teleconferencing was implemented in the early 1980s, following a United States Agency for International Development (USAID) feasibility study that explored the possibility of offering academic programs via satellite uplinks. The United States government offered the UWI use of the ATS6 satellite for academic purposes, which supported development of a teleconference-based distance learning system called the University of the West Indies Distance Teaching Enterprise (UWIDITE) (Dirr, 1999, p.51). This system eliminated the need for NCC students to incur the cost of travel to main campus countries in order to fulfill program requirements or take final exams (Office of the Board for Non-Campus Countries/Distance Education, 1998; Sherlock & Nettleford, 1990; Thomas & Soares,

[31] In 2008, the Open Campus consolidated the Office of the Board for Non-Campus Countries and Distance Education, The School of Continuing Studies, the UWI Distance Education Centre, and the Tertiary Level Institutions Unit.

2009).

The Renwick Report (Renwick, Shale, & Rao, 1992), an internal evaluation of the distance program, dissuaded the University from creating autonomous programs in the Non-Campus Countries (NCCs), arguing that "opportunities for mutual enrichment" between the main campuses and off-campus programs could be lost, as well as the possibility that the distance program would be regarded as inferior to on-campus instruction. As a result, distance course curricula are developed and taught by the same faculty, and follow the same examination schedule as on-campus programs. Courses taught on-campus are broadcast via teleconferencing. By 2001, the UWI offered 60 courses via distance learning, and the number of course offerings continued to grow every year. At the time of this study, UWIDEC offered over 6 degree and certificate programs:

> General Degree with double major in Agribusiness and Management
> B.Sc. Accounting or Economics
> B.Sc. Management Studies
> B.Ed. Educational Administration
> Certificate in Gender and Development Studies
> Advanced Diploma in Construction Management
> (The Certificate in Business Administration and Certificate in Public Administration programs were discontinued in 2005.)
> (Source: UWIDEC, *The Distance Student Handbook 2004 – 2006*.)

For the 2012 – 2013 academic year, the program offers over 32 degree and certificate programs, which are still predominantly in Education and Business, and professionally-oriented, rather than a liberal arts and humanities orientation.[32]

Since teleconferencing was implemented, there has been a drop in enrollment of students from smaller "non-campus" countries on the physical campuses. Enrollment in distance programs has rapidly grown,[33] particularly as fewer scholarships are available for students from

[32] Please see Appendix A for a list of the programs.
[33] Please see Appendix D for UWIDEC enrollment rates.

smaller islands to study away from their countries. Distance learning offers these students an alternative course of study at $810 XCD (approximately $300 USD) tuition per three-credit undergraduate level course, and $1,485 XCD (approximately $550 USD) per three-credit graduate level course.

Although distance learning has made higher education more affordable in Antigua and Dominica, funding is still a challenge for prospective students. The Ministry of Education in Roseau, Dominica allocates only five full scholarships annually when students reach Advanced Levels (or "A Levels").[34] In comparison, Antiguan students have more scholarship opportunities: In the 2006-2007 academic year, 452 Antiguan students received Ministry of Education-funded scholarships.[35] In the 1970s, Caribbean governments instituted either free tuition, or low-interest loan assistance for all students upon admission to the University of the West Indies. Barbados, Jamaica, Trinidad and Tobago, and St. Lucia are some of the countries that have applied this policy to both students at their national colleges as well as their UWI students. Dominica, St. Kitts/Nevis, and other small islands only assisted students attending national colleges, and excluded UWI distance students from funding. In the 1990s, most of these governments switched to subsidizing a percentage of the tuition, with the exception of Barbados, which still provides free tertiary education (Miller, 1991, p. 131).

While the UWIDEC's distance education program has alleviated obstacles for some students in Open Campus countries, distance and cost are still barriers. During the time of this study, the UWIDEC program required that students attend teleconferenced classes at local

[34] Based on the United Kingdom's education system, Advanced Levels or "A Levels" are subject area exams that are part of the series of exams administered toward completion of secondary school, and are used to determine university admission.

[35] Of the scholarship recipients, 148 (33%) were male and 304 (67%) were female. Forty-five percent of scholarship recipients were pursuing Bachelor of Science degrees, which include Social Science, Bachelor of Arts degrees (11.6%), and Associate's Degrees (4%). Please see details in Appendix D.

Distance Education Centres. Rural dwellers were, therefore, still disadvantaged. In countries such as Belize, Dominica, Providenciales, and Nevis, students reported that inadequate transportation and poor roadways linking rural areas to main cities remained major obstacles; during the rainy season, some roadways were impassable (Anderson & Thomas, 2001, p. 167). The University is in the process of phasing out teleconferencing, based on the cost-effectiveness of online instruction, and because distance program enrollment continues to grow at a pace that will inevitably make it difficult to accommodate the large number of students at the physical sites of local Distance Education Centres. Online instruction will still encompass "blended learning" (a course delivery system utilizing a blend of modes and media). The University's plan is that as teleconferencing is phased out, most of the printed material will be available online, and the University will offer fewer face-to-face tutorials.

UWI Distance Education Centre, Antigua

Antigua's UWI Distance Education Centre (DEC) is four kilometers from the city center. The buildings are tucked inside an open sports field and laid out in an enclosed rectangle. As one enters the site, the first room is the administrative office, which includes the Director/Resident Tutor's office. The Director/Resident Tutor oversees the administration of each site and initially, when enrollment was lower, the responsibilities of this position included leading face-to-face tutorial sessions (hence the title "Resident Tutor"). Across from the office is an air-conditioned computer lab equipped with 15 desktop computers. Classes are periodically held there, but its main function is to provide a space for students to work.

Next to the administrative office, a classroom, which seats roughly 40 participants, is set up for teleconferencing. The audio-visual coordinator sits at the front of the room, and is on-call during the broadcasting in case transmission is dropped. Before the class begins, one student is

responsible for arriving early, and on behalf of the class, checking in with the site from which the teleconference originates (i.e., the teleconference host calls “Antigua?” and a class member responds “Antigua online!”). The classroom is arranged with one table microphone at the front of the room and a screen for projecting PowerPoint presentations. During teleconference sessions, students pass the microphone when they have comments.

Next to the teleconference room are three classrooms, an open-air stage, and the library which is at the opposite end of the rectangle. The library is a large room, but the shelves are noticeably sparse and during the researcher’s fieldwork, there were usually few patrons. A small parking lot is located in front of the school, but there is no place for students to sit and congregate before or between classes. If students arrive early, they usually wait inside their classroom.

UWI Distance Education Centre, Dominica

The UWI campus is 2½ kilometers uphill from the city center, and its location next to the national botanical garden creates a pleasant small-campus atmosphere. The DEC building is newer than that of Antigua, with a grassy area where students congregate, and a sheltered area between the buildings where students study together. Like Antigua, as one enters the single-story building, the administrative office is to the immediate right. Across from that is the library, which is smaller than the Antigua DEC’s library in terms of physical space, but also relatively sparse. The collection is mainly comprised of textbooks and reference books. From that point, the building branches off to a room for teleconferenced sessions, and the audio-visual coordinator’s office. Beyond that point is a grassy garden area also used for congregating. Branching out in the opposite direction, one finds the computer lab, which provides access to approximately 20 desktops computers. Next to the computer lab is a classroom that can accommodate

approximately up to 40 participants, and the Resident Tutor/Director's office is located next to the classroom.

A main bus stop servicing several points on the island is located approximately three kilometers from the DEC. Like Antigua, many of the streets have open gutters, creating a gap between the sidewalk and the road. Some of the roads and major roadways leading out of the capital are paved, but many are packed soil and rocks. Roadway development began relatively recently because the task was costly and involved complex engineering.[36] Today, roads leading out of the capital are winding, with many blind-spots, and it is common for lorries and mini-buses to lose control while descending the mountains. Time, cost, and distance traveling to the Roseau Distance Education Centre are significant factors affecting participation in the University's program, but most students live in or near the capital.

Both DECs are relatively quiet during the day, with students sporadically stopping by the administrative offices. A few on-site sessions begin between 4-5 p.m., and these are mainly Education classes. The largest classes begin between 7-8 p.m. and usually meet for two hours. At both Centres, some of the students arrive in business attire because the schedules allowed them to come to campus directly from work. The face-to-face tutorials run by lecturers align academic support with that of the faculty on the main campuses. The curricula, and exam schedule, are the same as the campus-based countries, but on-campus courses may present more supplemental reading. A number of lecturers are business community members who receive a modest compensation, but according to the Directors, participate out of willingness to support the University.

The countries themselves are part of the learner ecologies, and each country presents its

[36] Blasting through mountainous terrain and circumventing nine active volcanoes posed challenges to building the first Transinsular Road in 1956, as well as the first highway connecting Roseau and the northern town of Portsmouth in 1972 (Honychurch, 1975, pp. 137-140).

own challenges and advantages to distance learning participants. Although each country within the Open Campus is unique, we can draw some general conclusions by considering the learner ecologies of Dominica and Antigua. The next two sections will explain and define "learner ecologies," "distance learning," and other terms used throughout the study.

Defining Terms in Distance Learning Research

"Distance learning" refers to a learner accessing instruction and resources at a distance from a learning institution or instructor, and is considered a form of non-traditional learning (Wedemeyer, 1981).[37] The term "virtual learning environment" refers to environments that are not face-to-face, traditional classroom experiences and, in particular, the online space where participants connect to communicate and access information about the course, as well as learning materials. This study refers to teleconferencing as "virtual" because part of the learning environment is not face-to-face. The UWI distance program is an example of "blended learning." As previously described, "blended learning" integrates different media, and modes of delivery. The UWI refers to blended learning as "dual mode" because it integrates both a form of technology and face-to-face learning experiences.

"Synchronous" means that the interaction between participants in a course occurs without a time lag (also commonly referred to as "real time"). Teleconferencing is an example of synchronous delivery, as are online programs that allow participants to communicate instantaneously. In contrast, "asynchronous" does not bring together participants to work together at the same time. An example is online bulletin boards (or "WDBs" —Web-based

[37] Charles Wedemeyer, the philosopher and scholar credited with pioneering distance learning in the United States in the 1950s, pointed out that the term "distance education" is broadly defined internationally, and he interchanged the terms "distance education" and "distance learning." He also pointed out that all of these modes of accessing instruction at a distance come under the category of "independent learning." Independent learning emphasizes the idea of autonomy (Wedemeyer, 1981, p. 48). Although correspondence study has existed in the United States since the late 1800s, Wedemeyer's ideas revolutionized the University of Wisconsin's Independent Study Program during his Directorship, and influenced other program models across the United States.

discussion boards), where participants post messages for classmates to respond to at any time.

A key concept in distance learning, and addressed in this study, is constructivism. The term "constructivism" has been used across disciplines—including epistemology, mathematics, education psychology, and instructional technology—with different meanings depending upon the academic context. In education psychology, the well-known developmental psychologist Jean Piaget's concept of "cognitive constructivism" asserts that cognitive development occurs over stages in childhood, during which understanding and knowledge are constructed through "schemata" (mental models). A learner's construction of schemata is supported through exploration and "authentic" learning experiences. "Authentic" experiences are those which are not broken down into separate academic disciplines or skill sets. Piaget's work in cognitive constructivism was advanced by Professor Emeritus of Social Science in Psychology at Stanford University, Albert Bandura. Alternately, American educational psychologist Jerome Bruner's and Russian psychologist Lev Vygotsky's definitions of "social constructivism" treat knowledge as a social construct, and emphasize that learning occurs through social interaction, during which the learner comes to understand the norms and rules that are considered "knowledge."

Bruner (1996) identified four prevalent models of pedagogy, which are based on the various theoretical assumptions in education psychology: instruction through modeling specific skills; didactic instruction of facts, rules, and principles; collaborative learning through "intersubjective" (subjective and objective) discussion; and guiding the learner to distinguish between subjective and objective "knowledge." Drawing from both cognitive constructivist and social constructivist theoretical frameworks, "constructivism" in instructional technology refers to a manner of instruction in which learners problem-solve through researching, analyzing, and piecing together information. It emphasizes synthesizing and directly applying ideas in

"intersubjective" and "authentic" learning environments.

Constructivism is also associated with the concept of "learner-centered instruction." For example, learner-centered instruction is distinguished from lecture-based methods in the sense that the instructor facilitates and guides learning, but the learner is central to the process of seeking and analyzing information as well as drawing from individual knowledge and experience. The underlying assumption is that learner-centered instruction is an effective way to stimulate "critical thinking," the common definition for which is "purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference… [It involves] …understanding the effect of *dominance structuring"*[38] (Facione, 2007, pp. 18-22).

Formerly, education as an academic discipline focused almost entirely on early childhood and adolescent learning processes. Since the 1920s, more attention has turned to learning across the life span, and the distinction between *pedagogy, andragogy*, and *heutagogy* has influenced how contemporary adult educators conceptualize learning. Adult education specialist Malcolm S. Knowles'[39] (1970) theory of *andragogy* proposed that adult learning must be approached differently from the traditional pedagogical models of primary and secondary education when developing adult vocational training and higher education programs. Christopher Cramphorn (2004), a senior lecturer in Information Systems at Nottingham Trent University, describes the andragogical perspective as "teaching and learning [that] is problem or task-oriented, based on requirements rather than a core prescribed curriculum" (p. 3). Stewart Hase of Southern Cross

[38] "Dominance structuring" is a psychology-based theory that describes decision-making through deemphasizing the disadvantages of a chosen option while bolstering its advantages, so that it appears superior, or dominant, over other possible options. Psychology Professor Emeritus of Stockholm University, Henry Montgomery (1983), delineated decision-making into four phases: pre-editing, locating a promising option, testing the dominance of the option ("dominance testing"), and structuring/restructuring the dominance of the option ("dominance structuring") (p. 343).

[39] Malcolm S. Knowles, who served as Executive Director of the Adult Education Association of the United States in the 1950s, is renowned for his theoretical writing on adult education. He developed theories on informal adult education and the concept of "self-direction" (essentially defined as initiative, goal-setting, resourcefulness, and self-assessment). Knowles also wrote a comprehensive history of adult education in the United States.

University and Chris Kenyon[40] (2001) expanded on Knowles' concept of andragogy, arguing that the next direction of vocational training and higher education in the "technological age" is "heutagogy," which privileges learning through practical, applied problem-solving and action research; according to Hase and Kenyon, heutagogy entails a greater degree of self-direction than andragogy.

This section identified and defined terminology used in instructional technology and distance learning research. As several of these terms are used in various disciplines, this section attempted to clarify meanings as applied within this study. Constructivism and critical thinking are considered here in relation to how UWI distance learning participants perceive their learning experiences, and the researcher assumed a neutral position on the effectiveness of these instructional methods. Constructivism, critical thinking, and student-centered learned are raised in this discussion, first, because they are currently part of the education discourse among the University of the West Indies administration and faculty, and second, because these methodologies have also come to the fore in the discourse on distance learning among Commonwealth countries.[41] Following are more succinct definitions of common terms used in this study.

Summary Definitions of Terms

Blended Learning: Integrates different media and modes of delivery. It is also referred to as "dual-mode" or "multi-modal."

Constructivism: This study uses the term as applied in instructional technology, which

[40] Hase and Kenyon both earned degrees in psychology. Hase's research specializes in organizational learning in higher education and the corporate sector, and Kenyon specializes in government and corporate consulting.

[41] A key organization at the center of this discourse is the Commonwealth of Learning (COL), an intergovernmental organization created by the Commonwealth Heads of Government for the purpose of dialogue, and exchange of resources and technology among Commonwealth nations.

means learning through analysis and problem-solving.

Dual-mode Course Delivery: Dual-mode integrates two modes of delivery, for example, printed textbooks/course packets and teleconference sessions.

Emic/Etic: A very general definition of these anthropological terms is that *emic* is data derived from how a community member describes cultural differences important to her or his community. *Etic* is the data derived from the researcher's description of the community, and the details and differences the researcher identifies as important.

Learner Ecologies: Factors in learners' environments that impact learning. The term "ecology" emphasizes the symbiotic nature of relationships in the learning community.

Resident Tutor/Director: Administrative director of the local Distance Education Centre.

Synchronous/Asynchronous: Synchronous describes an interaction between participants in a course occurring without a lag in time. Teleconferencing is an example of synchronous delivery because participants may communicate instantaneously. In contrast, "asynchronous" does not occur in "real time." One example is online bulletin boards, where participants post and respond to messages at any time.

Chapter II

LITERATURE REVIEW

Ethnography and Distance Learning Research

Ethnography is a research process originating in cultural anthropology but applied in several disciplines. The key elements of ethnographic research are: it is a cultural orientation, it is holistic, and it uses participant observation as a primary method of qualitative data collection (Wolcott, 1999, pp. 31-41). In 1914, anthropologist Bronislaw Manislowski embedded himself in the Trobriand Islander culture for his research; that is, his application of participant observation, and the comprehensive description of the Trobriand Islanders' way of life, shaped the methodological framework of ethnographic research to follow. This method of data collection distinguished ethnography from ethnology, which, in the 1800s, entailed collecting and cataloging data about communities of people for the purpose of delineating human history and making universal comparisons and generalizations. However, the process was divorced from in-depth contact with these communities. George and Louise Spindler (1987), who were among the first anthropologists to apply ethnography to the study of formal educational institutions in the 1960s, defined ethnography as the following:

> We study human behavior in social contexts, so we are interested in social interaction and the ways in which these environmental contexts impose restraints on interaction. We are interested in the meaning that social actors in contexts assign to their own behavior and that of others. We are concerned with the way in which people organize information relevant to their behavior in social contexts. (p. 18)

Harry F. Wolcott (1999), anthropologist and Emeritus Professor at University of Oregon,

asserted that ethnography must be "holistic," a term synonymous with providing context (pp. 78-79). Charlotte Aull Davies (1999), ethnographer and Lecturer in Social Research Methods at the University of Wales, defined "context" as "social conditions that affect both interaction and text" (p. 99). Unlike experimental design, which involves creating a "control group" and a "treatment group," the participant observation takes place in an authentic, pre-existing environment (Hammersley & Atkinson, 2007, pp. 1-4).

Ethnography also entails a description of the "culture" of the community studied. How "culture" is defined depends upon the academic discipline and the context of the discussion. This study of the UWI Open Campus program applied the definition as used by anthropologists in ethnographic research: "culture" is a concept—an analytical tool—for discussing the social interactions of a group of people. "Culture is to be regarded for what it is, an abstraction, a perspective for studying human behavior that gives particular attention to...acquired social behavior" (Wolcott, 1999, p. 68). In this use of the term, "culture" is a

> …dialogue...expressed in behavior, words, symbols, and in the application of… knowledge to make instrumental activities and social situations *work* for one. We learn the dialogue as children, and continue learning it all our lives, as our circumstances change. This is the phenomenon we study as ethnographers—the dialogue of action and interaction. (Spindler & Spindler, 1987, p. 3)

"Culture" is often misinterpreted as synonymous with "ethnicity" and "race." Ethnicity and race are constructs that use geographic association, or phenotype, to facilitate categorizing groups of people. Likewise, Wolcott (1999) explains that "culture" is a construct that allows the ethnographer to describe groups of people: "The ethnographer…recognizes culture not as something to be observed but as something ethnographers *put there because that is the way they render their accounts"* (p.76).

American anthropologist Ward Goodenough defines culture as "concepts, beliefs, and

principles of action and organization that an ethnographer has found could be attributed successfully to the members of that society in the context of dealing with them" (Goodenough, in Wolcott, 1999, p. 76). Goodenough clarified the distinction between "culture" and social groups or communities: "People belong to *groups*, not to *cultures*. One cannot belong to a culture any more than one can belong to a language; cultures and languages are ways of doing things, not something one can join" (Goodenough in Wolcott, 1999, p.76).

Social learning theorists Jean Lave and Etienne Wagner (*Situated Learning: Legitimate Peripheral Participation*, 1991) coined the phrase "communities of practice" as a more precise alternative to the word "culture." "Community in this sense is defined by what people do, not by who belongs" (Wolcott, 1999, p. 262).

> The notion of 'cultural orientation' variously invites attention to description, analysis, and/or interpretation, depending on the meaning an ethnographer assigns to the question of *where* the people being described are situated. Taken literally, the reference might begin with a location in physical space; figuratively, it might locate people according to their major activities...or their world view…. Cultural orientation can help the ethnographer define the outer physical and experiential boundaries of the lives of those being described, boundaries of time, place, and circumstance.... The necessary caution to today's ethnographer is to recognize such boundaries as an artifact of research, a convenience for the researcher. (Wolcott, 1999, p. 91)

"Culture" is a construct, or research tool used by ethnographers to convey their account of a field observation. At the same time, ethnography attempts to describe the culture of a community from the "emic" perspective. The terms "emic" and "etic" derive from the linguistic concepts "phonemic" and "phonetic." In the early 1950s, anthropologist and American linguist Kenneth Pike theorized that the terms could be applicable to describing human behavior: the "emic" is the world view of the actors within the studied community, while the "etic" is the researcher's interpretation (or translation) of that world view. Establishing a reasonable understanding of the emic requires time in the field. Wolcott observed that, first, the longer the

observer is part of the environment, the more likely the observed will act more naturally; second, time in the field allows the researcher to cross-check whether the events and behavior observed are "typical." Wolcott also pointed out that there are advantages to observing untypical behavior as well: "Witnessing such behavior can be extremely valuable to the ethnographer interested in teasing out beliefs about how people *should* act and the inevitable tension between what people feel they *ought* to do or *ought* to say, and what they do or say in fact" (p. 49).

The idea of the researcher's presentation of the emic raises concerns about objectivity, particularly in light of colonial legacy, eugenics, and the underlying dynamic of social class, race, and privilege between the observer and the observed (Masemann, 1982, p. 5). The view that anthropologists were constructing their objects of study "was given a very powerful impetus in the critique of orientalism by Edward Said (1978)...arguing that the intellectual and academic discourse about the nature of non-Western societies was really a projection by the West of its own preconceptions and imaginings" (Davies, 1999, p. 13). It is necessary to recognize that even the most faithful description of a community is presented to the reader through the researcher's interpretive lens. Reflexivity is, therefore, integral to the process of ethnography, and lends a level of validity to the research (p. 93). The process of synthesizing the data should clarify the categorizations and interpretations generated by the informant from those generated by the researcher (p. 197).

In education research, ethnography examines learning environments, or "ecologies," by observing actions and interactions that comprise communication, and the factors indirectly impacting the learning environment, such as economic conditions and social history. Professor Emeritus of Linguistic Anthropology at University of Maryland Michael H. Agar (*The Professional Stranger*, 1980) observed that as more of the world becomes urbanized,

"traditional" settings for conducting ethnography will "disappear." This idea aligns with concerns about globalization in relation to ethnography. The setting for ethnographic research has not disappeared but is reconceptualized (p. 204).

In *High Tech and High Heels in the Global Economy: Women, Work, and Pink-collar Identities in the Caribbean* (2000), Carla Freeman, Assistant Professor of Anthropology and Women's Studies at Emory University, points out the ways in which her ethnographic research in Barbados departs from the tradition of conducting research in a fixed, rural setting. Her research looks at the recent phenomenon of working-class women in economically developing countries employed by transnational companies in "informatics" (high-tech data entry). Her interest is in how the women's experiences of urbanization, transnationalism, and increased consumption of imported goods are reshaping their identities. Freeman describes her previous ethnographic field research as fixed in geographic space—usually rural Caribbean communities. *High Tech and High Heels* encounters globalizing influences that create fluid boundaries between urban/rural and Caribbean/foreign. She asserts that the modern transnational employment sector "poses new challenges to the performance of ethnography and invites us to venture into a new anthropology" (p.20).

In relation to transnationalism, the concept of globalization has prompted a reconsideration of cultural context as carried out in a single, fixed, physical space:

> The tendency to treat the field site as a place which one goes to and dwells within reinforces an idea of culture as something which exists in, and is bounded by, physical space. This tendency is exacerbated by the historical roots of anthropology in the study of relatively isolated communities, and by the continuing practice of concentrating on a particular region. (Hine, 2000, p. 58)

This assumption has been particularly problematic in Caribbean ethnography because of the various manifestations of migration that are part of the social and historical reality of Caribbean

people. With globalization, these migration patterns have grown more complex.

> In order to understand West Indian life it is therefore necessary to study the role of both fixed places and changeable and ever-expanding global networks of relations...a useful concept in such studies may be found in the notion of 'cultural sites,' cultural institutions which have developed in the interrelationship between global and local ties. (Olwig & Hastrup, 1997, p. 17)

Assumptions concerning "space" and cultural sites become further complicated in the study of social environments that transcend physical space, such as the Internet and distance learning environments, because participants are engaging in both physical and "virtual" spaces or, as in the case of the UWI teleconference program, dispersed physical spaces connected through technology. Concerning this study of the UWI distance learning program, how would the researcher define "culture"? Is the culture, as a unit of study, Eastern Caribbean culture, and if so, how is that defined? Is the "culture" in question the community of practice: that is, UWI's institutional culture or the culture of each local DEC? Another issue raised in the discussion is ethnography as a methodology for distance learning research. If the study were conducted as ethnography, how would the researcher locate the site of study in a multi-national teleconference program? Is the site the point of origin of the teleconference, or the classroom receiving the teleconference transmission? Is the site all of the classrooms connected together via technology? Although teleconferencing is a very basic technology, in this sense, it is similar to the research issues created by online distance learning, which will be discussed in the next section. While ethnography poses challenges for distance learning research, it is also an effective methodology for studying learner ecology because ethnography attempts to look at an environment holistically. The next section further examines the study of distance learner ecologies.

The Study of Distance Learner Ecologies

In education, "learner ecologies," broadly defined, has come to mean the myriad

influential factors in learners' environments that impact learning. Digital learning theorist George Siemens (2003) defines it as "an environment that fosters and supports the creation of communities" (p. 3). "Ecologies" alludes to the symbiotic nature of relationships within environments, and the study of learner ecologies investigates who participants are, what they do, and why they do it. The literature on virtual learner ecologies emphasizes collaborative learning, and much of this literature uses social-constructivist approaches[42] (Beasley & Smyth, 2004; Cramphorn, 2004; Grabinger & Dunlop, 1995; Hughes & Daykin, 2002; Ramsey, 2003; Sweeney, O'Donoghue, & Whitehead, 2004). The UWI has adopted measures to promote "critical thinking" and development of a "culture of learning,"[43] meaning the cultivation of "constructivist" learner ecologies that support student-centered, self-directed, collaborative learning.

As discussed, ethnographic methodology is invaluable to education research, particularly for understanding learner ecologies, yet distance learning research poses challenges to applying this methodology when it comes to identifying the unit of study. Time and space as experienced and conceptualized in distance learning pose challenges to the study of learner ecologies, and these challenges concerning the conceptual definitions of time and space are considered in the following sections.

Time

In relation to learner ecologies, "time" may be discussed in terms of the learners' life cycle, as a social construct, or in terms of how it is experienced through the technology applied in learners' communication and interactions. "Time" in relation to the life cycle considers the

[42] For the definition of "constructivism," please refer to Definition of Terms in Chapter I (Introduction).

[43] This phrase is attributed to Antigua DEC Director Dr. Ermina Osoba, and was used to describe student-centered ownership of learning. It is also discussed more extensively in the Research Findings section of this document.

position of distance learning participants along the trajectory of their academic careers. Adult learners usually have accumulated professional experience and life experience, which enhance the learner's repertoire of resources and frame of reference. The reasons for pursuing education through distance learning may be for job security or professional development to expand career opportunities. One of the key principles of andragogy[44] is that the learner's experience becomes an educational resource. According to Knowles' (1970) theory, a distinction between pedagogy and andragogy is that the adult's conceptualization of learning changes from "postponed application" to "immediacy" and "problem-centeredness" (pp. 53-54). In other words, the learner's conceptualization of "learning," and the learner's conceptualization of her or his role as a "learner," change over the course of the life cycle. In this particular study of UWI distance learners, the adult participants were successful in their academic careers, and most were coming to the program with some experience in their professional fields. This student profile may be different from other distance programs based in economically developing parts of the world, where participants may have limited experience relevant to the academic program or may have experienced chronic interruptions in their schooling.

Another way of understanding "time" is as a social construct. How do we analyze this construct as it is experienced by the distance learner? Rutgers University sociologist Eviatar Zerubavel (1985) observed that when the mechanical clock appeared as a new technology, it "played a major role in promoting artificial temporal regularity at work" (p. 87). Similarly, information technology in the workplace, and instructional technology in schools, is impacting how time is conceptualized. In higher education, the distance learner's experience is built around an academic calendar year (in the Eastern Caribbean, September through May), and within the school year, there is another construct called the "academic semester." This conceptualization of

[44] Please refer to Definition of Terms in Chapter I (Introduction).

time is different from the "fiscal year" in the business sector (usually beginning in April or July), and adult distance learners often must simultaneously operate within, and between, both of these realms. Technically, the business sector runs on an 8-hour work day. In a virtual setting, however, business activity can transpire at any point throughout a 24-hour day. Similarly, in an educational setting, blended instructional delivery (e.g., teleconferences) and synchronous activities (e.g., online "chats") are scheduled at fixed hours, while other aspects of the course (e.g., online discussion threads) are constant (or "asynchronous").[45] This convergence creates an additional challenge for distance learners, who must effectively balance all of these different dimensions of "time."

Time also shapes how participants communicate in distance learning environments. In a traditional classroom setting, participant discussions are usually lost once the session ends. In contrast, both asynchronous (e.g., discussion threads) and synchronous (e.g., chats, videoconferencing) classroom discussions can be saved and referenced. The fact that material from distance courses can be archived online, and conceivably exist long after the course has finished, is markedly different from what most adult participants have experienced over the course of their academic careers. In studies by Christopher Cramphorn (2004), senior lecturer in Information Systems at Nottingham Trent University, distance learners experienced both positive and negative responses to classroom community-building in relation to time. Some students expressed that they were inhibited by the permanency of World Wide Web-based bulletin boards, and the possibility that archived comments could be accessed by people outside of their classroom community. On the contrary, other students in his study viewed the dissemination of their ideas as "empowering."

The discursive approach of constructivism also allows learners to develop critical

[45] Please see Definition of Terms in Chapter I (Introduction).

> thinking skills. While at first students found posting their ideas daunting, towards the end of the courses students appear to have enjoyed comparing ideas and responding to others' messages. The constructivist nature of WDBs [Web-based discussion boards] acts as both a hindrance to the very weak student, but may assist the stronger candidate, supported by evidence on the three WDBs, where weaker students posted less relevant or lower numbers of messages.... The sudden realisation [that students'] ideas can be seen and critiqued by anyone within the WDB suggests that the underlying different epistemological nature of these forums is missed.... In other words, students and staff who wish to utilise such WDBs need to be informed and socialised into this form of interaction much more carefully. (Cramphorn, 2004, p. 4)

In a similar study, University of Western Australia professors Sweeney, O'Donoghue, and Whitehead (2004) researched how Internet-based instruction facilitates learning. They studied the perspectives of students in a "blended" tutorial: the course included both in-person tutorial sessions, and online discussion boards. Results revealed that the different learning environments created more equitable opportunities for participation. The in-person tutorials were dominated by assertive, usually male, students, while less assertive students participated more on the online discussion board. Overall, students' perspectives about using the virtual discussion board were mixed: some expressed that they felt more confident, and described a sense of freedom when asserting their views without concern about in-person confrontations with classmates. Others felt more vulnerable because of the "permanent and durable" nature of the medium. However, Sweeney, O'Donoghue, and Whitehead also found that students demonstrated a greater sense of ownership over their contributions and a greater sense of directing their own learning. The Australian researchers found that virtual bulletin boards yielded more "reflective discussion" (pp. 318-319). Likewise, at Napier University of Edinburgh, Scotland professors Beasley and Smyth's (2004) study of Web-based discussion boards found that students preferred the indirect, near "anonymity" of online discussions: students expressed that they were more comfortable stating and critiquing ideas because they were not communicating with peers face-to-face (p. 44). In terms of how participants conceptualize their role as learners, other studies found that students

did not intuitively see aspects of student-centered learning, such as peer critique and leading discussions, as part of their role.

> Knowledge construction debate was not evident in any of the groups' discussion boards.... there was a marked reluctance among students to criticize other people's work. It appeared that the academically stronger students would be the first to post draft essays and that the other students would then praise them.... There was an assumption [made by instructors] in the [course] design that they would discuss their subject matter, and yet they did not do so. That they were not required to discuss the topics, coupled with their reluctance to critique others' work was not conducive to constructivism. This was the first time for most of them that they had been required to see other people's essays. (Hughes & Daykin, 2002, pp. 220-222)

When managing and navigating the fluidity of virtual time, participants in virtual learning environments respond differently to the lag in communicative exchange. In a physical classroom, participants are expected to respond according to social norms, within the same amount of time as in a conversation. Long silences are usually negatively interpreted as incomprehension (even when this is not necessarily the case). With asynchronous discussion threads, there is no expectation that participants must respond to questions or comments instantaneously. Does this allow participants more time to reflect before responding? Swan (2003) of the Research Center for Educational Technology at Kent State University found significant differences between the way distance learners experience time in synchronous versus asynchronous[46] communication:

> In traditional, face-to-face classrooms, instructors and students can negotiate meanings in real time. This allows instructors to make goals and expectations clear and to remediate student misconceptions and confusions as they occur. In asynchronous courses, this kind of negotiation of meaning is not possible. In addition, course interfaces and course design add another layer of information students must make sense of. (p. 24)

Cramphorn (2004) found strengths and weaknesses in how students experienced communication in asynchronous environments.

The lack of synchronicity between messages and replies was often cited as a common

[46] As previously described, in a synchronous environment, participants interact in "real time." For example, they can "chat" on an online course site, although they are physically dispersed. Conversely, an asynchronous environment, such as a discussion board, entails posting messages and then checking later for a response.

> factor as students were frequently desperate to get some sort of response. The time lag exacerbated the problem since all respondents suggested that they were frequently nervous about what sort of response they would get from their peers.... This suggests another factor. The time needed to reflect upon a post and give a "good" response, because of the psychological factor of their response being on view...was often quite a long time. The reflection time was seen as both a hindrance, and a pro-participation factor. This was because students knew they would have to wait a while for a response, which was de-motivating, but they generally got a very good response to read. (p. 5)

Navigating and assessing the plethora of information available in an "information age" are skills, as are dealing with ambiguity and negotiating meaning in virtual environments. At the same time, instructional technology has the capacity to address different learning styles, and different learning goals.

> Interactions among students through asynchronous discussion have been perceived by many authors to be the most unique, and so interesting, sources of learning in online courses. [Students] view online discussion as more equitable and democratic and as more mindful, and reflective than discussions in face-to-face classrooms. Research also suggests that asynchronous learning environments might be particularly supportive of experimentation, divergent thinking, and complex understandings, and less supportive of convergent thinking, instructor directed inquiry and scientific thinking than face-to-face discussions. (Swan, 2003, pp. 24-25)

Nancy Griffin Mims (1999), Education Professor Emerita of University of West Georgia, concurs that asynchronous learning environments create opportunities for more class participation, and that the flexible nature of time in an asynchronous environment impacts the quality of participation. She described the learning environments of her online courses:

> Many of our classes are large, and in the time frame of weekly classes, not all students participate. Now, however, students, who before had no voice, are participating in on-line bulletin boards. They are not using technology to hide; they are using technology to reflect before they speak. This security offers chances to rewrite before sending comments, self-esteem is bolstered, and new networks are developed. My students now state their names before they speak in class. Others recognize the name and put a face to the messages they received. Group projects are more productive because students who normally would not work together because of distance are about to share information over email and through chat rooms. Reflective journals, once turned in every couple of weeks and returned a week later with comments are now sent over private email and professors can send immediate reactions. Students no longer have to wait for feedback. Handouts are minimal and note taking becomes more sophisticated, Power Point

> presentations can be downloaded or accessed for further study. Does this take time? Of course it does, but time is more productive. Even with deadlines, entries come in a little at a time, so remarks and grading are more in depth. (p. 2)

Katrina A. Meyer (2003), a University of Memphis professor specializing in online learning research, takes Mims' assertion a step further, to show that participants using online discussion threads drew on the flexible nature of time in that environment in order to reflect, and engage in higher-order thinking (pp. 55-56). In contrast, synchronous chat discussions require the same type of immediate response expected in a typical face-to-face social exchange. This is complicated by the absence of physical and visual cues that usually allow communicators to know when to speak and when to listen (or wait for a response) (Goffman, 1959). In synchronous chat discussions, there is competition for participants to have an opportunity to comment, ask, or respond, and an urgency to do so before the topic changes (Hara & Kling, 1999).

Although the focus of current literature and research on distance learning environments is mainly about computer-based environments, some comparisons with teleconferencing are possible. The teleconference environment is not "virtual" in the same sense as an online environment. Rather, this study uses the term "virtual" in reference to the fact that in the UWI's blended learning program, the point of origin of the teleconference, and the other physical classrooms in the session, are dispersed and intangible to participants at the DECs. Similar to online discussion boards, participants could become more inhibited by the idea of interacting with disembodied voices; they do not know who is among their virtual teleconference classmates. Other participants could find the relative anonymity empowering. In comparison with communication in a physical classroom, the group dynamic of participants in one room listening to the teleconference together can support, or hinder, class discussions. It can direct who does or does not participate. There is also the matter of the technology itself: although

teleconferencing is instantaneous (synchronous), the quality of the transmission during the teleconference could interfere with the flow of discussion.

In this study of UWI distance learner ecologies, participants experienced manifestations of time described in this section: time in terms of life cycle, and social constructs of time (such as the work place, in contrast with the educational institution). The blended learning program's synchronous modes of course delivery (teleconference and in-person tutorials) have implications for how participants interact and conceptualize their learning experience. The next section discusses the concept of space in relation to distant learner ecologies.

Space

"Space" may be defined as physical, or "virtual" (which is conceptual). Space can also be regarded as a social construct: for example, we may explore the idea of a "Caribbean region" created as the result of an imagined connection between a chain of islands. In fact, the "West Indies" is a misnomer, and "Commonwealth Caribbean" perpetuates a status of post-colonial "otherness" onto the independent nations in this region.[47] Furthermore, the former "West Indies Federation" (1958-1962) came about, in part, because of the need for disparate islands to pool resources as they sought to create a political unit autonomous from Britain. However, the individual concerns of countries within the Federation challenged notions of a collective "West Indian" identity, rendering the coalition a failure. The strength of the connection between nations in the region, and the people of those nations, is stretched and compressed over time in relation to economic, political, and social changes.[48] For example, during the first wave of Caribbean

[47] The definition used here is that which originated in the work of Hegel, and was later adapted by post-modernist and post-colonial theorists in works such as Said's (1978) *Orientalism*, bell hooks' (1992) *Black Looks: Race and Representation*, Bhaba's (1994) *The Location of Culture*, Gilroy's (2004) *After Empire: Multiculture or Postcolonial Empire*, and Spivak's (1999) *A Critique of Post-colonial Reason*.

[48] Benedict Anderson (*Imagined Communities*, 1983) theorized about how the idea of "nation" came to be as a "cultural artifact"—an imagined political community. He also theorized that print text was one of the elements

migration to New York in the 1920s, immigrants identified themselves as "West Indian." As the Caribbean immigrant population grew (particularly after 1960), new arrivals began identifying themselves according to country of origin, not as members of a region (Kasinitz, 1992). Similarly, Daniel Miller, an anthropologist of material culture, and United Kingdom sociologist Don Slater (Miller & Slater, 2000) describe how in the mid-1990s, Internet users tended to self-identify as "Caribbean" or "West Indian." "As soon as new technologies developed, such as ICQ [an instant messaging program], and the numbers online permitted it, we see the regional community of users almost entirely disappear without any kind of legacy, to be replaced by this highly nationalistic category of Trinidadian" (p. 94).

In this study of distance learner ecologies in Antigua and Dominica, participants were part of a regional university that aims to have a "Caribbean focus." References to a "Caribbean focus" and a "West Indian community" are made throughout the University's mission statements and literature:

> The University of the West Indies is the only university with a *Caribbean focus* and a global reach. (The Business Development Office, UWI, St. Augustine campus, Trinidad and Tobago) (italics added)
>
> UWI's mission is to unlock West Indian potential for economic and cultural growth by high quality teaching and research aimed at meeting critical regional needs, by providing *West Indian society* with an active intellectual centre and by linking *the West Indian community* with distinguished centres of research and teaching in the Caribbean and overseas. (Mission Statement, UWI, Mona, Jamaica) (italics added)
>
> The enduring mission of The University of the West Indies (UWI) is to propel the economic, social, political and cultural development of *West Indian society* through teaching, research, innovation, advisory and community services and intellectual leadership. (UWI Strategic Plan 2007-2012 in UWI Mission and Vision, UWI Open Campus) (italics added)

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that laid the foundation for nationalism. In a 2005 interview with Norwegian anthropologist and journalist Lorenz Khazaleh, when asked whether globalization has negated nationalism and national identity, Anderson responded that to the contrary, nationalism has "gone mobile"; he cited the political participation of Argentinian exiles on the Internet as an example (University of Oslo, *News*, December15, 2005).

The countries within the network vary in terms of economic and infrastructural development and local concerns. Developing curricula that are locally relevant, yet catholic in scope, is therefore an ambitious task. There is also the matter of inclusion: distance learning creates an opportunity for intellectual exchange between students from different countries within the region, but at the same time, most instructors are based in countries with main campuses, resulting in fewer opportunities for small countries within the network to contribute to University course offerings.

To a certain extent, migration concretizes the concept of a "Caribbean region." Cyclical migration connects these essentially disparate islands economically and socially, and the "Caribbean diaspora" is also a significant part of the regional migration cycle. The diaspora is connected with the Caribbean region through remittances, seasonal migrant workers, and social ties. Miller and Slater (2000) discussed the Web presence of small countries, and how Internet use is strengthening connections between these small countries and their diasporic communities. They explored how the technology has created and necessitated new ways of approaching ethnography. Their research observed how the nation of Trinidad and Tobago was represented and recreated on the Web, and they analyzed how the Trinidadian "community" created a virtual presence, even though the members of this community were dispersed across nations. The authors examined "the way a communicative technology is encountered from, and rooted in, a particular place" (p. 4). Within a virtual space, the Trinidadian community symbolically articulated indicators that define "Trini" identity. Trinidadians abroad viewed the technology in terms of connecting themselves to the social and political culture of a "back home." Rather than the Internet shaping Trinidad, Trinidadian users shaped the Internet. In this sense, the end users are shaping the technology to articulate their identity and reflect their concerns and perspectives.

Miller and Slater challenged the assumption that the globalizing force of the Internet dis-

embeds users from a particular place, and that cultures take on new identities rather than "projecting older spatial identities" (p. 85). To the contrary, the authors found that the Internet made Trinidadians hold onto "older senses of self and place" the more they encountered a global environment. Thus, the Internet supported what the authors termed "expansive realization." Their findings suggest that the technology further engaged users in their own "culture" (as defined by the users) and values (p. 7).

This understanding raises questions about center-periphery relationships and globalization.[49] Although the Internet is perceived as both a symbol and tool of "globalization," the relationship Miller and Slater describe completely obscures notions of a center-periphery dynamic (p. 20).

> On the one hand, there are strong pressures to globalization in the sense that cultures and economies are dis-embedded from local contexts, in particular making national boundaries redundant as political, cultural or economic borders. On the other hand, the nation also disaggregates downwards, as it were, into more local or regional entities, into new re-embeddings and re-formations of identity.... No doubt these are real and important processes, but they do not quite describe how Trini-ness and Trinidad are being reconstituted here [on the Internet].... What we have been describing is a projection of nationally-conceived projects and identities into a newly available global context. (p. 103)

Like Trinidad, Dominica and Antigua have a Web presence: 11 chat rooms are dedicated to Antiguans at home and abroad. Antigua Net and Microsoft Network's Antigua and Barbuda Lime Community are examples of popular social networks. The Dominica Diaspora (www.dominican-diaspora.com), an online social network comprised of 8,741 registered

[49] Dependency theory examines the relationships between countries in terms of a "metropolis-satellite" model. Sociologist and economic historian Andre Gunder Frank proposed that underdevelopment is the result of Western nations colonizing parts of the world to create market economies for their surplus goods. This relationship "penetrates to the regional and local levels" as well. "Just as the national cities have become the satellites of the Western metropolises with respect to the provincial cities, which in turn have local cities as satellites surrounding them. A whole chain of constellations of metropolises and satellites is established to extract economic surplus...to local capitals, to regional capitals, to national capitals, and finally to the cities of Western countries" (So, 1990, p. 97). U.S. sociologist and world-systems analyst Immanuel Wallerstein (1979) rejected this bifurcated "center-periphery" model because some economically developing countries display characteristics of both, particularly in terms of controlling trade (pp. 180-181).

members, demonstrates the characteristics Miller and Slater analyzed. The site serves as a portal of news about Dominica, arts and culture, and tourism. It also serves as a resource for searching for relatives and friends. Beyond the usual indicators of cultural identity (music and food), contributors assert that Dominicans should have prolific knowledge of their national history and literature. Discussion threads revolve around political debate and social issues from a "Dominican perspective."

A recurring topic in the discussion threads is repatriation. Comments posted by returnees reflect how they establish insider status through intimating familiarity with cultural indicators (such as mentioning popular locations or interjecting Dominican creole). Debates pertaining to infrastructural development and ecological conservation are also prominent on the discussion threads. Within these debates, members re-assert their positions as insiders (on-island) and outsiders (part of the diasporic community), speculating about "what should be done" to improve the country. The contents of the website effectively illustrate Miller and Slater's "expansive realization" concept: these indicators and articulations strengthen relationships and reinforce notions of cultural/national identity despite the spatial distance and larger context of a "world-wide" Web.

Freeman (*High Tech and High Heels*, 2000) addressed similar discussions as those raised in Miller and Slater's (2000) *The Internet: An Ethnographic Approach*. Miller and Slater demonstrated how Trinidadians used the Internet to extend and disseminate expressions of "Trinidadian culture," which contrasts with assumptions that globalization and technology are gradually "Westernizing" non-Western parts of the world. Similar to Miller and Slater's work, Freeman's research calls into question former assumptions about center-periphery relationships between "industrialized," and "economically developing" countries. Likewise, this study of

learner ecologies in the UWI distance learning program considers how the UWI is adopting and implementing educational theories of critical thinking and constructivism (defined in instructional technology as "student-centered learning"). In the interviews, UWI administrators and students expressed the importance of locally relevant curricula and the existence of a regional, Caribbean identity. For economically developing parts of the world such as the Caribbean, how is regional identity and locally relevant curricula achieved and retained in the context of contemporary globalization, and the recognized need for graduates to join a globalized workforce? Like the Caribbean-oriented social network sites, is it possible for Caribbean higher education to have a presence and influence in this globalized environment? In what ways might these theories, in practice, look different from "critical thinking" and "constructivist" practices in British and American curricula? Future research could examine how these theories are adapted into general school culture and teacher training in the Eastern Caribbean.

Ethnography is a useful methodology for classroom research, and its application in distance learning research raises new questions in relation to space. Is ethnography helpful in studying a distance learning program within a regional institution, such as UWI, where the lecturers are dispersed and their lessons disseminated across a multi-national network? To what extent does a distance program's point of origin impact and shape the learner's experience? To what extent does the distance learning participants' location impact and shape the virtual, or blended, learning environment? The essays in Cornell University professor Assié-Lumumba's (2004) compilation of writings by comparative and international educators address distance learning in Africa and Asia and raise similar questions concerning cultural context.

> Despite the fact that learning is brought to the learners in their sociogeographical environment, does distance education, conceptually and as applied, take into consideration the local cultures? How have the objectives, philosophy, content and the results (if any) been conceived to avoid cultural inappropriateness or downright "cultural

> imperialism" (cited Carnoy, 1977) that was identified in the classical ivory towers of post-colonial classical universities born of the center-periphery framework? (pp. 5-6)

Continuing the discussion about conceptualizations of "space" in distance learner ecologies, a group of students in a classroom is a "community" of sorts, whether it meets physically, virtually, or both. In a virtual environment, the common assumption is that developing a classroom community is more challenging when the participants are geographically dispersed. Is the distance learning classroom community a composite of several smaller communities when there are simultaneously both a physical classroom community and a remote community (or several remote communities)? In a blended-mode environment such as UWI, what are the behaviors of participants in the physical teleconferencing site, and what is their interaction with their remote learning community at large? Does the teleconferencing system foster a greater sense of an Eastern Caribbean regional community?

In physical classrooms, class size often impacts the quality of instruction and learning. Certainly, many factors dictate class size, and one of those factors is physical space; in physical classrooms, the number of participants that may feasibly attend a lecture is not unlimited. In contrast, there is an illusion that distance learning environments are unaffected by such constraints. Recently, many educational institutions have added distance learning programs as a means of revenue-building because, in theory, distance courses can accommodate a large number of enrollees. This raises the question of whether the quality of the online discussion is diminished as the enrollment increases. If the solution is dividing students into small working groups, does that defeat the opportunity for students to interact with other participants? Likewise, in the blended learning environments of the Antigua and Dominica Distance Education Centres, are participants able to engage in both in-person and "virtual" interactions regardless of the size of their (physical and remote) class?

Hosein (2001), a reference librarian for the University's main library in St. Augustine, Trinidad, described the advantages of distance learning programs in small countries: "Fewer students allow distance education classmates to meet face-to-face easily, interact with lecturers, and have greater access to computers reserved for information searches" (p. 196). Distance learners in Trinidad also have the advantage of access to resources at the UWI campus in St. Augustine, in addition to their local Distance Education Centres. Is there an added benefit to the fact that Dominica and Antigua are small countries as well, or is that advantage negated by limited resources? These questions challenge the supposition that remote, or "virtual," learning environments transcend the limitations of "space" encountered by physical classrooms. In distance learner ecologies, class size has implications related to "time" and "space" as well as "resources." For example, in dynamic learning environments, participants themselves can be "resources" in terms of offering experience and knowledge. The various ways of considering "resources" in distance learner ecologies are addressed in the next section.

Resources

Accessing and managing available resources are challenging endeavors for distance learners in economically developing countries. Technical resources, technological support, print or digitized academic resources, and human resources all comprise distance learner ecologies. Like most distance programs, the UWI provides course packets, but ideally, participants are still expected to supplement study materials through other resource materials and self-directed research. How do Antiguan and Dominican distance learners locate supplemental academic materials?

A key issue for higher education institutions in economically developing countries is the ability to access academic resources originating from within the country, as well as from abroad.

Philip G. Altbach (1987), American professor and researcher on international higher education, wrote that:

> Third World nations are in many respects still dependent on the industrialized countries. One of these dependencies is the area of knowledge creation and distribution.... Third World nations are, in a sense, at the periphery of the world system of knowledge, with the industrialized nations at the center of the system. This system, which some analysts have called 'dependency' is, in part, a natural result of the legacy of colonialism, the imbalance in the world's scientific production, and the general internal problems of the Third World—poverty, illiteracy, the lack of a large education system, and many others. (p. 32)

Altbach defined knowledge dissemination as the "political economy" of the distribution of knowledge as a resource, the patterns of control over the system, and the reasons for and implications of that control (p. xii). His research looked at the inherent inequities of academic publishing and distribution, observing that the majority of books came from a small segment (30%) of the global population[50] (p. 18).

The UWI distance learning program provides DECs with physical libraries, which are currently non-circulating reference collections. In 2006, the University created remote access to IP-protected electronic resources through extended licensing agreements, which has made it easier for UWI affiliates, particularly distance learning participants, to access materials online (Soodeen, 2007, pp. 97-98). Hosein's (2001) study on the library research training of UWI students emphasized the importance of information gathering and critical assessment as "lifelong skills" that must be addressed in tertiary education programs (p. 196). As discussed in Chapter II (Literature Review), andragogy[51] entails supporting higher education students and other adult learners in sharpening media literacy and critical thinking skills, as well as cultivating an

[50] The University of the West Indies Press, the largest regional publisher in operation for 17 years, has enabled wider distribution of works by Caribbean scholars. The Press publishes 35-45 academic books and reprints annually. In 2009, publications on Caribbean history accounted for 27% of sales, and cultural studies accounted for 22% of sales in the North American library market. In the global market, publications on Caribbean history accounted for 49% of sales (UWI Press Annual Report, 2009).

[51] Please see Chapter I (Introduction), Defining Terms in Distance Learning Research.

environment where learners perceive themselves as "resources" (Thompson & Deis, 2004, p. 108). Much of the research literature on distance learning supports this orientation. The next section will further discuss the body of literature on the role of learners in constructivist environments, and explore ways in which distance participants serve as resources within their learning communities. It will also discuss the challenges involved in cultivating learner-centered communities in virtual environments and dispersed learning environments, such as the UWI blended-mode program.

Classroom Community

Distance learners themselves become "resources" within the distance learner ecologies, contributing to the synergy, support, and cohesiveness of a learning community. The challenges involved in building classroom community vary depending upon whether the course is blended, online, synchronous or asynchronous, and there is a growing body of literature on how to effectively promote community and collaboration in distance learning and in "learner-centered" instruction (Brown, 2001; Redfern & Naughton, 2002; Rovai, 2002).

The University of South Africa (UNISA), the continent's oldest and largest distance institution, began disseminating its programs using online technology in 2004.[52] Their program started as print-based, with very little communication between instructors and participants. Heydenrych, Higgs, and VanNiekerk (2004), professors and researchers at UNISA, described the transition from print-based correspondence to online course delivery, observing that "learner grades and retention rates are significantly better when compared to print-based results," and

[52] The University of South Africa was originally established in 1873 as "University of the Cape of Good Hope." At that time, it only held examinations. In 1946, it became a teaching university, offering instruction entirely through distance education. In 2004, UNISA merged with Technikon Southern Africa and incorporated the Vista University's distance education component. It is notable that UNISA was an interracial institution throughout the apartheid era (1948-1994). Former president of post-apartheid South Africa, Nelson Mandela, studied law through UNISA's correspondence program while incarcerated on Robben Island.

they attributed the effectiveness of online delivery to improved communication between students, classmates, and instructors (p. 137). Mark Bullen (1998), Assistant Director of the Continuing Studies, Distance Education and Technology division at the University of British Columbia, emphasized that distance courses can be designed in a way that facilitates opportunities for participants to learn from each other, and his research found that "learner-centered" discussions stimulate critical thinking (p. 5). The term "learner-centered" appears in the American Psychological Association's (1997) *Learner-Centered Psychological Principles*, and the concept has long been a part of various instructional methodologies. The learner-centered approach to facilitating discussion may be a novel experience for some adult distance learners, and some may prefer receiving a definitive, expert answer from the instructor rather than going through the sometimes ambiguous process of collaborating with peers (Hughes & Daykin, 2002; Ramsey, 2003; Sweeney, O'Donoghue & Whitehead, 2004).

In their research, Caroline Ramsey (2003) of University College Northampton, Centre for Professional and Leadership Development, and Janet Macdonald (2003) of Open University in Scotland, found that some distance participants are unaccustomed to critiquing peers, which is often a feature of learner-centered assessment strategies. Peer feedback is not a strategy exclusive to distance learning, but it has been widely adopted in distance instruction because this method has the potential to support "constructivism" and "critical thinking" (Macdonald, 2003, p. 387; Ramsey, 2003, p. 6). For participants accustomed to lecture-based instruction, giving peer feedback requires reconceptualizing one's role as a learner. The next section further considers how distance learners conceptualize (or reconceptualize) their understanding of "learning" and their role as "learners."

Conceptualizations about Learning and the Role of Learners

For the purpose of this discussion, "conceptualizations" are defined as the paradigms about learning that participants bring to their classroom environment and their expectations based on those paradigms. The discourse on distance learning focuses on "constructivism" and "critical thinking," which are concepts that compel participants to re-conceptualize their role in the distance learning environment and challenge their preconceptions about "learning." Because conceptualizations about learning and the role of learners are grounded in social, cultural, economic, and historical influences, this section begins with a description of the social-historical context of Eastern Caribbean education.

In the early 17th century, British settlers in the West Indies were mainly small-scale landowners and buccaneers. Civil service and other government jobs were acquired through networking and nepotism, so there was little incentive for British settlers of lower socio-economic status to pursue formal education, and only a small number of White settlers were literate. After the Restoration of 1660,[53] wealthy planters began sending their children back to Britain to be formally educated (Bacchus, 1990, pp. 38-42). In the mid-17th century, the colonial government implemented legislation for "reading and writing schools" in the British West Indies in order to provide basic education in every British settlement with over 50 families. This law mainly affected Barbados, which was the most economically prosperous Caribbean island during this period, and among the Eastern Caribbean islands had the largest population of permanent White settlers. Toward the end of the 17th century, Quakers made significant efforts to provide free education to the African and "colored" populations in the British West Indies. Formal

[53] Charles II's Act of Indemnity and Pardon made it possible for citizens to return without consequence following the English Civil War (1642-1651) and the dissolution of the Protectorate (1653-1659). After returning from exile in 1660, Charles II (Charles Stuart) was reinstated as king, and restored the Anglican bishops to Parliament. (Source: R.M. Bliss. (1985) *Restoration England: Politics and Finance 1660 - 1688*, p. 8).

education was taken over by the Catholic Church in Dominica, and various other religious denominations, such as the Moravian Church, established schools in Antigua. Some colonial legislators attempted to undermine these efforts out of fear that religious conversion could lead to slave uprisings. For example, the Quakers (also known as the Religious Society of Friends) openly condemned slavery in their teachings because of their ethical and religious convictions. Furthermore, references to the slave exodus in the Old Testament, the empowering nature of literacy, and congregating on a regular basis encouraged the feasibility of slave revolt.[54]

The rise of the sugar industry in the British West Indies created a highly stratified pluralistic social order, which was reflected in all aspects of society, including education. Schooling was available to the poor, but was insufficiently funded. Secondary education was supported through charitable donations, and provided services to the children of higher economic status families. Elite grammar schools on the larger islands, such as Barbados, were fee-based and modeled after English institutions (Bacchus, 1990, p. 42). Following emancipation, the Negro Education Act of 1835 pledged financial support for public schools, which were accessible to children of African descent. After 1841, financial support decreased annually until it was completely terminated in 1845. Termination of aid resulted in several school closings wherever the churches were unable to take over funding. Colonial government reports discovered a disparity between the large number of enrollments in schools funded by the Anglican, Methodist, and Moravian churches, and the number of students actually attending these schools. High attrition rates were attributed to abject poverty, particularly among the Afro-Caribbean population; for example, children from poor families lacked appropriate clothing to attend school, or had to work to help financially support their families. Even when the colonial

[54] The earliest records of slave revolts in the Eastern Caribbean date back to the beginning of the 17th century, and a succession of revolts took place in the region during 1789-1832. The Haitian Revolution (which began in 1791 and culminated in independence in 1804) influenced subsequent uprisings (Drescher, p.19).

government established child labor laws and compulsory education in the 1890s, the true rate of school attendance remained low (Bacchus, 1990, p. 51; Lazarus-Black, 1994, p. 245).

Another reason for the disparity between school enrollment and actual attendance is that, initially, former slaves were enthusiastic about the opportunity for free education, but then quickly realized that the poor quality of the schooling offered would do little to change their children's position in a rigidly stratified society. Parents also expressed dissatisfaction with the fact that British colonial education was limited primarily to agriculture (for boys) and homemaking (for girls). From 1865 to 1945, the ruling government formally insisted upon this curriculum at all levels of education. By the end of the 1930s, anti-colonial agitation and a wave of labor riots throughout the British colonies led to investigations into underdevelopment in the Caribbean region and colonial administrative reform, including what was by then a highly centralized West Indian education system. A revised curriculum for the British West Indies was introduced in 1939, which used Caribbean rather than British readers, and emphasized Caribbean rather than European history (Bacchus, 1994). By 1943, the British government created the Asquith Commission, which was tasked with establishing higher education in colonies throughout Africa and the Caribbean. As described in the Context of the Study section of Chapter I, the institutions created as a result of this initiative played a crucial and lasting role in African and Caribbean educational development (Cobley, 1994, p. 12).

Alongside the development of the West Indian Federation in 1958, the educational philosophy of the region shifted toward perceiving schools as vehicles for civic development fostering a new "regional identity." This perspective is reflected in articles such as Ramcharan-Crowley's (1961) "*Creole Culture: Outcast in West Indian Schools*," which addresses the problem of 150 years of "colonial education policies in St. Lucia and Dominica [that have] been

designed to eradicate the local Creole cultures" and changes that should be made to meet "local and future needs" (p. 429). The article makes the point that British-based curricula were inconsistent with the realities of Caribbean life. Ramcharan-Crowley also points out that, at the time, students were pressured to pass the British External Examinations, because the local Caribbean schools' reputations were based on the number of pupils able to pass these standardized tests. She questioned whether such policies actually supported regional development or were in young people's best interest: "West Indian parents fiercely resist any attempt to change these unrealistic and undemocratic examinations because they fear the loss of standards and prestige, and the difficulty of transferring credits abroad" (pp. 432-433).

Although some of the Caribbean islands had either achieved greater sovereignty or independence in the 1960s, the historian and politician Eric Williams[55] in *Education in the British West Indies* (1968, reprinted 1994) criticized that the Eastern Caribbean education system had not changed since the 1940s. According to Williams, the primary school curriculum inadequately portrayed the history, lives, and concerns of Caribbean people (p. 166). The need for a curriculum that addressed "West Indian values" and "West Indian culture" is a theme that resonates in texts throughout this period.

The West Indian Federation's collapse in 1962 occurred around the same time that the University College of the West Indies (later to become the University of the West Indies) received a charter establishing its autonomy from the University of London.[56] While several historical interpretations explain the reasons behind the failure of the Federation, it is undisputed that the coalition's dissolution left smaller Eastern Caribbean islands economically vulnerable, as

[55] Educated at Oxford, Eric Williams was the first Prime Minister of Trinidad and Tobago from 1956 until his death in 1981.

[56] For the discussion of the history of the University of the West Indies, please refer to the Context of the Study section of Chapter I (Introduction).

they received less support from comparatively more affluent islands such as Jamaica and Trinidad. Concurrently, the larger, more affluent nations questioned the viability of supporting smaller islands while adequately addressing the needs of their own fragile economies, particularly as they sought to become increasingly less dependent on Britain.

The University of the West Indies, too, was pressured to decentralize because of similar concerns: the more affluent countries within the University network (Jamaica, Barbados, and Trinidad) questioned their ability to sustain economic support for smaller, "non-campus" countries, and the smaller countries wanted to ensure access and quality of education equal to that of the three countries with full campuses. In this sense, the parallel between the struggle to establish a regional coalition and the struggle to establish a regional institution is clear: "Nationalist agendas in the various island states…ate away at the concept of a single West Indian nation, and operated as a centrifugal force in university affairs. The non-campus territories…demanded an increased physical presence by the university" (Cobley, 1994, p. 19). In spite of these conflicting pressures surrounding nationalism versus regional unity, the idea of a "Caribbean regional identity" remained part of the UWI's vision.

> Probably the greatest and most telling effect of the University's presence in respect of raising the consciousness of the first post-1938 generation around to its creative potential as 'first persons' in the region, was the release of a stream of graduates steeped in new knowledge of the history and social studies of the Caribbean. (Nettleford, 1993, p.139)

The connection between education, post-colonial independence, and national identity was also evident in other areas of the world. The democratization of newly independent states and nations in the 1960s and 1970s included agendas for broadening access to education, and distance learning was a cost-effective way to address this issue. Examples of early initiatives are the radio-based distance education programs supported by the Tanganyika African National

Union[57] in the late 1960s, and television-based *Telesecundaria*, which started in 1968 and remains hugely successful in Latin America (Sewart, Keegan, & Holmberg, 1988).

This section described Eastern Caribbean educational development in a historical context to illustrate how history has shaped contemporary conceptualizations about the purpose of schools and learning. Conceptualizations about learning are grounded in social, cultural, economic, and historical influences, including the inequities of slavery, the legacy of colonial education, and the process of democratization and independence. It is also significant that throughout this history, the notion of a Caribbean regional identity has been a recurrent theme. "Critical thinking" and constructivist pedagogical theories have recently entered the teaching and learning discourse among Caribbean educators. These concepts compel participants to re-conceptualize their role in the distance learning environment and challenge preconceptions about "learning." The next section further discusses ideas about how historical traditions impact the way distance learners encounter constructivism.

Constructivism and Critical Thinking in Relation to Learner Roles

Historical and cultural context plays a significant role in the educational philosophies that shape conceptualizations of "learning," as exemplified by University of the South Pacific professor and scholar of traditional Tongan culture Konai Helu Thaman (1997) in her observations about distance education in the Pacific Islands.

> Distance education providers in PICs (Pacific Island Countries) need to realise that the mode of teaching and learning associated with distance education, like schooling in the nineteenth century, is, by and large, alien to most Pacific cultures. Pacific people traditionally learned from one another, through their interaction. The teacher-learner relationship was an intimate one where observation and imitation were basic means of learning.... When schooling was introduced to the peoples of the Pacific, the responsibility for teaching and learning was transferred to the 'teacher' who, in Tonga for

[57] Founded by politician Julius Nyerere, the Tanganyika African National Union (TANU) established Tanganyika's sovereignty in 1961. In 1964, Tanganyika and Zanzibar merged to form the United Republic of Tanzania.

> example, was *fatiako* (one who learns or brings about learning). The implication was that the teacher would first learn (the new knowledge and skills) and learners would observe and imitate her. Hence the notion of a learner, independent of a teacher, was and perhaps still is a difficult concept for many to understand. At the USP [University of the South Pacific], for example, we have found that most of our Extension students continue to require personal contact with tutors, despite various attempts to make course materials completely 'stand alone.' (pp. 30-31)

Thaman attributes students' conceptualizations and expectations about learning to traditional indigenous culture as well as to their institutional acculturation in the region's education system:

> Some university staff have argued that the formal education systems in PICs have tended to reinforce styles of dependency in learning among many of our students. For example, in most Pacific schools, induced discipline rather than self-discipline is encouraged and emphasis is placed on learning strategies such as memorisation. Distance education, on the other hand, requires independent students who have a high capacity for analysis and synthesis, as well as self-discipline. The high failure and withdrawal rates in many courses, particularly in the sciences and commerce, may be a product of this mismatch. (p. 33)

The skill set described is not exclusive to distance education, but Thaman makes the point that distance learning environments inherently require independent learning and an understanding of critical discourse. How distance learners conceptualize learning and their role in that process is a form of what French sociologist and anthropologist Pierre Bourdieu termed "cultural capital." The cultural reproduction framework analyzes how institutions, such as schools, validate the dominant culture's values, and "cultural capital" negates the principle that public schools are meritocratic institutions (Bourdieu, 1977). This framework argues that ascribed rather than achieved status, attained through assets such as socio-economic class and language, is inadvertently rewarded in the classroom. These assets, or "capital," reflect the value-system of society at large, but create hidden inequities in schooling (Bourdieu & Passeron, 1977; Bowles & Gintis, 1976). In her research, Rigmor A. George (1997), an Australian education consultant, found that Australian students previously trained in critical discourse were more easily acclimated to distance learning, where this skill is privileged.

> Successful participation in social situations (including education) is determined to a significant extent by whether the language demands of the situation are met. Varying discursive history is, therefore, a significant issue in education. Because certain sectors of the community have less familiarity with, or access to, the discourses of the institution of education, they are in a less favourable position to succeed. (p. 47)

Stewart Marshall, former University of the West Indies Distance Education Centre Director[58] and former Coordinator of Academic Studies at University of Swaziland (1996-1998), assisted with establishing distance education in the University of Swaziland's Institute of Distance Education (IDE) during his tenure there. Marshall (2001) observed that the secondary and tertiary teaching methods in Swaziland were more skills-oriented than analytical, and the IDE staff wanted to transform their role from "deliverers of education" to "facilitators of learning." Marshall created a strategy to move toward student-centered methods, which would involve students "as partners and action-researchers in the [distance education] project in Swaziland" (p. 69). Lecturers found that changing students' understanding of their role as learners proved challenging. Marshall noted that, "One course lecturer verbally commented on the absence of critical thinking in the work of the first year students, both on and off campus. She laid the blame for this on the culture of obedience and respect for authority in which most Swazis are reared (this lecturer was herself a Swazi)" (p. 71).

Dr. Ermina Osoba (2001), anthropologist and former Resident Tutor/Director of the UWI Distance Education Centre in Antigua, observed a similar disposition among UWI distance participants:

> First, at all levels of the educational system, Caribbean students are being nurtured in a 'culture of learning' that is still, to a large extent, very traditional. By this is meant that students tend to be passive recipients of knowledge and skills imparted to them by someone considered more expert than they. Thus, there is generally an overwhelming need for a teacher, there is little emphasis on self-learning…. [Students' complaints about lack of library resources] are indeed justified, but in many instances, local tutors find that

[58] Professor Marshall is currently a Professor Emeritus of the University of the West Indies. In 2007, Dr. Hazel Simmons-McDonald was appointed Pro-Vice Chancellor and Principal of the UWI Open Campus.

> their students do not do even the required reading. They come to tutorials expecting to be lectured to or told exactly how to answer a particular question. Again, this problem stems from the way our students have been socialized to learn. (p. 55)

In 2007, the University of the West Indies established an Institute of Critical Thinking at the St. Augustine, Trinidad, campus, which is described as "a multidisciplinary research establishment dedicated to the study of human development and the transformation of education" (2004-2012 http://sta.uwi.edu/ct/). The Institute's objective is to create a space for discussion and research among the Eastern Caribbean learning "community," and plans to "reassess the role of educational institutions" and the "design of learning environments" (2004-2012 http://sta.uwi.edu/ct/). For example, the Caribbean Examinations Council (CXC), which regulates the secondary school exit examinations for the Eastern Caribbean region, entered a "memorandum of understanding" with the Institute of Critical Thinking in 2009, the purpose of which was to have the Institute review 11 academic subject area examinations, and recommend ways to better address critical thinking skills within these exams.

Summary

The literature review discussed ethnography and the inherent challenges of applying this methodology in distance learning research, in particular the reconsideration of cultural context as carried out in a single, fixed, physical space. In education research, ethnography examines learning environments, or "ecologies," including factors indirectly impacting the learning environment, such as economic conditions and social history. Learner ecologies address learning environments holistically, including social and historical contexts. It is a simple way of defining a basic concept of learning environment, including the idea of the symbiotic nature of learning. This study is a meta-analysis of the application of the concept of learner ecologies in research on distance learning, and considers various definitions of time, space, and resources in learner

ecologies in relation to participants in the UWI distance learning program. This section reviewed the body of research on the way asynchronous and synchronous learning environments influence classroom dynamics, participation, and interaction, which will be further examined in the context of participants' experiences in the UWI program. The next chapter describes the methodologies used in the study, followed by a description of the research findings.

Chapter III

RESEARCH DESIGN AND METHODOLOGY

This descriptive study attempted to capture the University of the West Indies' interstitial period of transition from "blended learning" (or dual-mode course delivery) to distance learning exclusively online. Because the study aimed to understand learner ecologies, the research design included mixed methodologies that allowed the researcher to develop a sense of social context and an understanding of the learners' perspectives. The study considered the different levels of context; that is, the distance learning participants' geographic region, their countries within that region, and their cities. It considered the context of their membership as part of a regional University, their participation in a multi-national (dispersed) distance learning program within that university, and their participation at the level of the DECs in their individual countries.

The objective was to generalize about the distance learning experience and learner ecologies across the Open Campus countries. This objective entailed identifying commonalities between the learner ecologies of participants in Dominica and Antigua, and determining to what extent these commonalities were country-specific or generalizable to the rest of the Open Campus countries in the network. The diversity of the countries within the Open Campus network, the limitation of a two-country study, and limited time in the field were all obstacles toward generating sufficiently comparative data. Nevertheless, while Antigua and Dominica differ, there are some discernible similarities between the DECs at the two sites; based on information about the program, the researcher extrapolated from these similarities to understand

the overall Open Campus. The researcher's cultural background, as well as the accessibility of the DECs in Dominica and Antigua, played a role in selecting which of the Open Campus sites to include in this study. The Site Directors at Dominica and Antigua DECs, Dr. Francis Severin, and Dr. Ermina Osoba, respectively, were immediately supportive of the project, which facilitated the required fieldwork.

Surveys and statistical reports from the University and federal government offices provided quantitative data to further support understanding the geographic context. Managed by the Distance Education Centre in Barbados, all of the Open Campus countries receive the same academic programs, but each DEC is affected by local factors, such as their federal Ministry of Education budget (which determines institutional subsidies and student scholarships), the quality of each country's primary and secondary schools, technological accessibility, and employment opportunities for graduates. For example, Antigua's stronger economy, in comparison with Dominica, translates into a larger number of student scholarships and better funded public schools. From an economic perspective, Antiguans are able to afford and select from a larger pool of tertiary institutions, including study abroad. Local distance learning programs are, therefore, more significant in Dominica. This is reflected in the fact that although Dominica's overall population is smaller, the enrollment in UWI's distance program is larger than that of Antigua.

Qualitative data from the interviews and observations helped shape the narrative of the participants' social environment and experience, and the study attempted to present participants in their own words whenever possible. Interview and observation transcripts are presented here verbatim, and readers are reminded to bear in mind the validity of several "Englishes" as they are spoken in a variety of ways in a variety of contexts.[59] A standard English examination is a

[59] For example, during the researcher's experiences interviewing New York City teachers, respondents

prerequisite to admission to the UWI distance learning program, so participants are fluent in "standard English." In informal settings, such as interviews or discussions with classmates, it is reasonable that respondents may use what linguists term "Caribbean English" or "creolized English." Informally, Antiguans speak an English-based "Leeward Creole," while Northeastern Dominicans speak English-based "Cocoy" (or "Kockoy") and, throughout the country, a French-based "Antillean Creole." [60]

Preparing for Data Collection

Preliminary research and preparations for fieldwork began with a visit to the main campus in Barbados, which houses the Distance Education Centre (UWIDEC)—the administrative hub for the University's entire distance education program—where the researcher collected data on enrollment statistics from the UWIDEC Statistical Office. The data included enrollment statistics as early as 1989; the University restructured its dual-mode system to feature teleconferencing in 1995.[61] These data showed how the percentage of women enrolled had rapidly begun outpacing that of men across all subject areas. It also showed that this trend was also clear not only in distance learning, but at the physical campuses. Meanwhile, enrollment in the distance program was steadily growing. Did this mean people who would have studied on campus were now choosing to study locally via distance learning, or was distance learning opening up tertiary education to people who would not have enrolled previously, because they could not temporarily move to a campus country? These were the questions that began to arise when considering the institution's statistical records.

Prior to collecting data in Antigua and Dominica, the researcher informally interviewed

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frequently used non-standard grammar and "slang" expressions, reflecting the informality of the setting.

[60] Please refer to Country Profiles of Antigua and Dominica in Chapter I (Introduction).

[61] Please refer to the Table "University of the West Indies Distance Centre Enrollment" in Appendix D.

the Distance Education Centre Director in Barbados and the Registrar. These interviews gave an overall understanding of how the program is run, the demographics, and the types of research questions of interest to administrators. The researcher also conducted informal interviews with staff and professors at Skidmore College, an American-based institution that, at the time of the study, had extended its distance learning program to Antigua. Skidmore's University Without Walls (UWW) was formerly one of the largest and most well-known foreign-based distance programs in Antigua. The researcher found it useful to understand a different distance program in Antigua, as a point of reference. As a liberal arts college, Skidmore UWW was more comparable with UWI, as opposed to the business and vocational distance learning programs available in Dominica and Antigua. The data and information about Skidmore UWW were not directly included in this study, but were used for informational purposes; it provided further background information about distance learning programs in the Eastern Caribbean. The association with Skidmore also provided the researcher with a greater network of contacts in Antigua, and offered a broader exposure to different perspectives, including contact with the teachers' union staff.[62] The researcher formally interviewed current and former University Without Walls-Antigua distance learning participants. Having background information about another institution was useful for opening both formal and informal discussions about distance learning experiences during fieldwork. Moreover, it was useful to discern what was unique to UWI, and what was generalizable about distance learning in Antigua (or the distance learner ecologies there). In Dominica, there were no other locally-based distance programs available during the time the study was conducted, and foreign-based programs were not as well-known. During her time in the field, the researcher also met with administrators at the local Ministries of Education and

[62] The researcher also considered ABIIT's (Antigua and Barbuda International Institute of Technology) distance program, solely as a point of reference.

interviewed administrators at the Antigua and Barbuda Union of Teachers Association (ABUTA).

Data Collection

Initially, the main "problem" of the study was whether, as the distance education program improved and gained popularity, graduates from smaller countries such as Dominica and Antigua found appropriate employment opportunities locally, or migrated abroad to take advantage of their advanced degree in overseas job markets. Addressing this question involved developing interview and survey questions that ascertained participants' "plans"—that is, how they viewed the distance education opportunity in relation to migration. The first set of interviews was used to pilot the study. This preliminary data was used to determine whether the questions were relevant and comprehensible to respondents, and learn whether the questions were effective for understanding migration and the participants' experiences in the program. The preliminary interviews asked about the respondent's background, career, field of study, experience in the distance program, challenges, and strategies employed as a distance learner. The interviews also asked abstract, opinion-oriented questions about distance learning, migration, and the well-known gender disparity in education. Some common themes appeared: all of their parents/guardians went to primary school; they lived nearby; they went to private schools; they worked and most were the head—or primary provider—for the family; many hoped to change profession, but most did not plan to leave the country; they experienced many of the same challenges (e.g., time management and finding academic resources); and they shared similar perceptions about what was important to them in the learning experience (e.g., peer interaction). These responses were used to refine the survey questions about the participants' reasons for choosing distance learning (Survey Item #19), and the choices presented in the Likert-scaled question concerning types of challenges encountered (Survey Item #17 and Survey Item #18).

The researcher's rationale behind this work was that these types of questions would provide a more comprehensive understanding about the relationship between migration and distance learning. The questions were designed to uncover how participants described their experience—particularly the challenges—and what distance learning meant to them, in terms of their role in the learning process and their expectations. While migration was of great interest to the researcher, it became clear during the course of data collection that it was a matter of lesser importance to the respondents. Respondents were more interested in describing their experiences and the strategies they used as adult learners returning to the classroom, balancing their studies with obligations at home and at work. They were also more interested in speculating about the future of online learning, specifically in their UWI distance program. In this way, the importance of holistically discussing the learning environment came to the fore. The learning environment was not just what transpired in the classroom, but all of the factors that directly and indirectly affected it (home, work, local economy, libraries, transportation, etc.). It was necessary to apply a concept that would allow the researcher to holistically consider all of these factors. These ideas shaped the researcher's decision to examine "learner ecologies."

Data collection involved surveys and structured interviews with current students and recent graduates of the UWI Dominica and Antigua distance learning programs, and observations of teleconference sessions and face-to-face tutorial sessions at the Distance Education Centres (DECs) in Dominica and Antigua from February 2-27, 2007. The researcher went to the DECs daily for two weeks in Antigua and one week in Dominica. (The initial research design for this period was to conduct the bulk of the data collection in Antigua and establish contact in Dominica. This was to be followed by a return to Dominica to complete the bulk of the data collection there, and possibly return to Antigua to address any remaining gaps in the data. Due to

unforeseen circumstances, this was the last visit to both sites.)

The DEC Resident Tutors/Directors were instrumental in facilitating interviews and recommended current and former students to approach. The Resident Tutors/Directors expressed to the researcher that these recommendations were based on students' availability rather than other factors (such as a perception of them as "good students"). However, as a methodology, self-selection and recommended volunteers do present a level of bias in the research design.

Survey respondents were also self-selected. At the Distance Education Centres, the researcher introduced herself to students, and distributed the surveys at random as they waited for tutorial sessions and teleconference sessions to begin or as they worked in the computer lab. Although the survey was intentionally designed so that respondents could complete it quickly, they appeared to take time to read and thoughtfully respond to it. Although a bias exists in the fact that survey respondents were self-selected, it does not seem to figure significantly in the results because the questionnaire asked about students' individual experiences as distance learners. The wording of the survey avoided value judgments about the institution or quality of education. Copies of surveys were left in the administrative offices, but students did not pick up and complete these on their own initiative: directly collecting surveys in person was more effective.

In light of the fact that most of the data was collected on site, a larger data set would have captured information from participants who came to the sites less often or not at all. These students could have been accessing the audio file of the teleconference and listening to it alone. This could have changed the data because these participants were experiencing a different "ecology"—an experience separate from the DEC environments and their fellow participants. As a result, it is possible that these participants could have a different view about the relevance or

importance of interaction and classroom community in the distance learning experience. Contrary to participants who traveled to the DECs, face-to-face interaction may not be as important to those who do not utilize in-person teleconference and tutorial sessions.

During data collection, the focus of the study was still migration, but the survey was designed to collect quantifiable information about participants' experiences and environment. The qualitative data from the structured interviews and observations expanded on these points. The interviewees did not complete the surveys because the questions were similar, but the interviews allowed the researcher to probe the interviewees to further elaborate on their responses. In the original research design, the surveys were a way of trying to provide breadth, while the interviews were to provide depth and detail.

The Research Instruments: Survey and Interview Protocols

The first set of survey and interview questions was designed to collect logistical information. Gender and age were important because the researcher expected that the results should be similar to the UWI's statistics about distance learner demographics. The survey results did align with the UWI's statistics. The question about household composition was originally intended to further understand this demographic. However, the researcher was aware that limiting the question to two choices ("single head-of-household" or "married") did not necessarily reflect the possibilities of different types of households or different interpretations of the meaning of "head of household."[63]

The purpose of Item #3 ("Growing up, who lived in your household?") was to learn about socio-economic status: the participants in this program were academically successful, so there was an underlying question concerning the connection between their success and their families'

[63] The definition of head-of-household is discussed at greater length in Chapter IV (Research Findings).

level of educational attainment. The original research design considered conducting life histories that focused on academic experiences, and this survey question would have been a starting point for these in-depth interviews. In the final analysis, the responses to Item #3 illustrated the opportunities available to each seceding generation. Determining whether the respondents attended public or private school (and the parish where the schools are located) provided a general idea of socio-economic status. Asking where respondents currently reside was also meant to establish a sense of socio-economic status, but it was also useful for establishing approximately how far participants commuted to the DECs.

This project included both former and current participants. Items #6-8 asked the programs of study and the year/s they took the courses. Items #9-13 asked the reasons for choosing distance learning and the UWI program. The researcher expected that the predominantly older adult participants would cite full-time employment and affordability as primary reasons.[64] Prior to the fieldwork, the researcher was not aware of the imminent transition to online course delivery; Item #9 ("If given a choice between taking a course online, or via teleconferenced sessions, I prefer taking the course online.") was no longer a hypothetical question. Had plans for the transition been known, the researcher would have developed a more direct question concerning the change in course delivery. The Employment and Career section of the survey was also intended to further explain the participants' objectives for pursuing the program.

As previously explained, Item #17 and Item #18 were refined using results from the pilot interviews, and the items in the Likert-scaled questions were factors identified by the interviewees. Item #19 addressed the possibility of migration. Although migration became a

[64] In contrast, in many economically developing areas such as South Africa, India, and the Pacific Islands, students enter tertiary distance programs directly after graduating from secondary school, so full-time employment is not a primary reason for choosing distance learning.

secondary issue, the question did allow a better understanding of the demographic in this study, and illustrated the connection between socio-economic status and the opportunity to study overseas.

The questions in the interview protocol were the same as the survey, except that additional questions were developed for participants who were also teachers. These questions asked for whether or how teachers were using their own distance learning experience to better understand the nature of teaching and learning, and whether they were adopting or transferring these ideas to their classroom. The researcher was interested in this possibility because of the current discourse on constructivism, and student-centered learning. However, few respondents made that connection. A possibility for future research could involve asking teachers whether they were studying *about* these ideas, and whether, as learners, they had experienced constructivist models of instruction.

The last section (Plans) addressed migration, and the results showed the participants were most likely remaining in Antigua and Dominica, but not because of the UWI distance program. Even before embarking on the distance learning program, this demographic, because of the types of jobs they occupied and the nature of their households, was unlikely to emigrate. The responses illustrated that the program is providing a professional development opportunity to participants who otherwise would not (or could not) further their post-secondary and graduate education.

Classroom Observations

The teleconference and tutorial sessions were observed at random, based on sessions scheduled during the fieldwork in Antigua and Dominica. Teleconferencing entails an in-person class session conducted in one of the campus countries (Trinidad, Jamaica, or Barbados) simultaneously broadcast to local Distance Education Centres where students are gathered to

listen and participate. An audio file of the event is later posted online, as are supplemental materials provided by the instructor, such as PowerPoint presentations. The teleconference sessions and tutorial sessions at the two sites meet in classrooms that can accommodate approximately 30 participants, but the meeting size varies and attendance is not mandatory.

Aside from using the teleconference and face-to-face tutorial sessions as an opportunity to distribute the surveys, the researcher observed the sessions as part of the data. Classroom observations were part of the original research design, but at the time, the researcher considered it a relevant but minor part of the project. (At this point, the focus of the study was still migration.) The observations were initially for the purpose of observing the program in action, and learning what the participants did during a session. The researcher described the classroom settings and the teleconference lesson activities in detail. Verbal communication was captured verbatim because one of the study's key questions concerned interactions and classroom environment.

During the observations of the teleconference sessions and of the tutorial sessions, the researcher positioned herself alongside the participants in the room. This vantage point allowed the researcher to hear and observe conversations between all of the participants as well as hear the teleconference. Any visual components, such as PowerPoint slide presentations, were projected at the front of the room, visible to all of the participants and the researcher. The DEC Directors granted the researcher permission to observe the teleconference and tutorial sessions, and although students were aware that the researcher was not part of the class, she participated as unobtrusively as possible by conducting herself as a student, but not actively inserting herself into the discussion. It is highly probable that actively participating in the discussion would have changed the environment, but it is also possible that reticence could impact the participants'

decisions about whether or not to engage in the discussion or how they chose to engage. In other words, one person's lack of participation could confirm an unspoken consensus that it is acceptable not to participate.[65] Under the circumstances, the researcher attempted to observe an authentic environment. In Chapter IV (Research Findings), the names of the courses were changed to fictitious titles to protect the participants' anonymity.

The researcher also conducted interviews with the Resident Tutors/Directors and administrators of the Distance Education Centres. She conducted these interviews after having collected most of the data at the sites. The interview questions for administrator were designed at the same time as the participant interview questions. The data from the administrator interviews provided insight into the distance education population at their sites, as well as general observations about higher education in their countries. Much of the information from the administrator interviews supported data from the participant interviews and the observations.

After leaving the sites, through snowball sampling,[66] the researcher conducted subsequent participant interviews by phone, and a few surveys were completed and submitted through a Web-based version, as well as via email attachment. As previously stated, in-person survey data collection was more effective than efforts to collect data remotely; the distance education population is both dispersed and heavily influenced by time constraints, so although use of technology, such as email and online surveys, provided flexibility in terms of access at the respondents' convenience, it lacked the sense of immediacy and familiarity of directly meeting the researcher. In-person data collection also enabled the respondents to better understand the

[65] Wolcott (1999) addressed the common dilemma concerning the degree to which the observer participates by suggesting the label "non-participant participant observer": "I take the label of the 'non-participant participant observer' as a self-ascribed label for researchers who make no effort to hide what they are doing or to deny their presence, but neither are they able fully to avail themselves of the potential afforded by *participant* observation to take a more active or interactive role" (p. 48).

[66] Those interviewed or surveyed on-site referred the researcher to potential respondents. The researcher also collected contact information from prospective respondents who expressed interest in participating.

purpose of the research and was less imposing on their time. Distance learning research usually involves working with a dispersed population, and the researcher attempted to effectively utilize the UWI's "blended learning" feature, which creates a convenient physical space for accessing members of the population.

Similarly, the original "problem" of determining how distance education programs impact migration posed a challenge, because migration studies also involve populations that are dispersed or in transit. That is why the original research design focused on the participants' perceptions and plans concerning migration in relation to their academic achievement. The data did not reflect any significant interest in migrating, and the factors surrounding their experiences as distance learners negated any incentive to migrate. At the same time, these factors revealed interesting information about the population, including how they perceived or conceptualized their role as distance learners, and their expectations and challenges. The migration question became secondary in the study, and the data were analyzed with a focus on learner ecologies.

The data set in this particular study is limited, but its richness suggests that a mixed-methods approach of quantitative survey data, and qualitative interview and observation data, may be effective for addressing research on learner ecologies. It also suggests that classroom ethnography would be a meaningful methodological approach, but would have to be reconceptualized to accommodate a different interpretation of site and unit of study. It would have to address the issue of dispersed classroom environments, and the idea that "cultural space" includes multiple sites or a combination of physical spaces. This methodological "problem" of multiple sites became particularly evident during teleconference observations, when the participants in one physical space (a classroom in Antigua) were simultaneously participating in a second classroom environment (the remote space of the teleconference class at large, which

this study refers to as a "virtual" space because it is intangible to some participants).

The survey was helpful in addressing the question, "What are the factors affecting distance learner ecologies?" The question concerning whether a participant's perceptions and conceptualizations about learning shaped how instructional technology was experienced in distance learning was implicitly addressed in the interviews, as the participants elaborated on their experiences studying independently, managing group projects, and interacting during the teleconference or tutorial sessions. Interviews and surveys implied certain ideas about how the participants conceptualized their role as learners, while actual participation in the teleconference and tutorial sessions implied certain ideas about how the participants enacted their role as learners. These data also addressed the dynamics of classroom community and interaction in a blended learning environment, which became a point of discussion in the study. It raised an important discussion about the ideal of creating a student-centered distance learning environment within a "tradition" of lecture-based instruction.

Overall, the data created a starting point for exploring how learner ecologies can be discussed in terms of time, space, and resources. The concept of learner ecologies was used here to frame a meta-analysis of distance learning research methodology. It is a way of demonstrating the abstract ways important factors can be defined and discussed. While the teleconference program is not virtual learning, it creates an interesting scenario and rich environment for applying the concept of learner ecologies.

This study also raised another conceptual challenge concerning sites in distance learning research. The unit of analysis of an online learning environment could be the virtual space that is used as the point of communication (e.g., Web-based discussion threads or transcripts from online "chats"). With the teleconference, the point-of-contact between the site generating the

lecture (or the origin of the transmission) and the peripheral classroom environments at the DECs is tenuous. Observing and understanding this tenuous relationship helps us better understand the participants' learner ecologies. While the limitations of the research—particularly the small data set and the limited time in the field—prevent broad generalizations, the descriptive analysis stimulates key areas for discussion and future research on distance learner ecologies.

Reflexivity

In *Reflexive Ethnography* (1999), ethnographer Charlotte Aull Davies discusses how, in the course of fieldwork, informants may tell one story about themselves while the researcher observes another, differing story.[67] This is an example of the complex dynamic between the emic and etic.[68] As discussed in Chapter I, the etic is the researcher's description of the context, and the emic is how informants describe the context to the researcher. Readers of an ethnography bear in mind that the informant's description is filtered through the researcher, because what the researcher infers and presents, is shaped by her or his cultural and theoretical biases. In ethnographic research, the researcher attempts to lend transparency to these biases.

In this study, the teleconference classroom environment the researcher observed was different from what participants described. They could have been describing their ideal of what distance learning should be, or it is possible that the environment is sometimes more interactive. The researcher attempted to address her biases, such as preconceptions about what is a distance course, expectations about participant behavior in a classroom environment, and assumptions about what constitutes a learning environment. Bourdieu's concept of cultural collateral shaped the researcher's interpretations, and in this study, the researcher assumed that cultural collateral

[67] Peter Metcalf, anthropology professor at the University of Virginia also addresses reflexivity in *They Lie, We Lie: Getting on with Anthropology* (2002).

[68] Please see Chapter I (Introduction) for definitions and discussion of the terms *emic* and *etic*.

impacts the learning experience, and that the learners' social environments (the learner ecologies) are as important as internal (cognitive) factors. This study suggests that environment is important in distance learning research, but there are several concurrent environments (ecologies) to consider.

This chapter explained the methodology and research methods applied during data collection and the researcher's rationale throughout the process. The next chapter describes and analyzes the data, followed by a discussion of the research findings.

Chapter IV

RESEARCH FINDINGS

This study looked at the learner ecologies of distance program participants in two sites (Antigua and Dominica) within the University of the West Indies (UWI) Open Campus, focusing on four key factors: time, space, resources, and interaction/collaboration. The distance learner population of UWI Antigua at the time of the study consisted of 125 participants, out of which 61 (49%) completed questionnaires. The Antigua respondents were 42 women (69%) and 19 (31%) men. The distance learner population of UWI Dominica at the time of the study was 216 participants, out of which 96 (44%) completed questionnaires. The respondents were 79 women (82%) and 17 men (18%). In terms of gender, these percentages are consistent with the female:male ratio of both Distance Education Centres, as reported by UWI. The percentage of female students enrolled in the distance program (Open Campus), as well as the University overall, was greater than the percentage of male enrollees. The average age of respondents and interviewees—32-35 years old—was also consistent with the University's statistics on the average age of students in the UWI distance program. However, because the survey respondents represented only a fraction of the distance learner population, it is possible that a larger data set would have revealed different results. The distance education program focuses on Education and Business, and survey results showed that the majority of respondents were employed in these sectors. Only one student identified herself as "unemployed."

The researcher conducted 15 interviews with students and graduates: nine from UWI,

Antigua, and six from UWI, Dominica. Twelve interviewees were women, and three were men; eight were current students, and seven were graduates who completed their degrees after 1999. Nine were public school teachers, four worked in the commercial sector, and two were health and education administrators.

The researcher observed 6 teleconference sessions at the Antigua DEC and 6 tutorials at the Dominica DEC. Class size in teleconference sessions ranged from 3-25 students and, as expected, students in both teleconference and face-to-face sessions were predominantly women.

In pilot interviews, the respondents described their experiences as distance learners (Item #17: "Was learning via distance education a different experience for you? Aside from technical problems, what aspects of distance learning did you find challenging? Is it different from what you expected?"). The researcher identified six common themes in the responses:

- Availability of library resources
- Availability of textbooks or course packets
- Getting answers to questions
- Time management
- Studying independently
- Understanding the course content

The researcher categorized these themes into four factors: time, space, resources, and interaction/collaboration.

The study also attempted to extrapolate from the participants' responses in order to understand their conceptualizations about learning and their role as learners. Survey Item #18 asked respondents to rate the frequency with which they apply each of the seven strategies listed whenever questions arose concerning course content. One objective for posing the question was to see how the participants were responding to the autonomous nature of distance learning. During the interviews (particularly Interview Item #17), the respondents' narratives about their experiences, challenges, and coping strategies provided insight into how they viewed their role

as learners.

The following section will explain how the data addressed the key factors in the learner ecologies (time, space, resources, and interaction), and describe what the results of the study suggest concerning each of these factors.

Time

To further understand why the participants came to the program, their circumstances, and the advantages and challenges of distance learning, Survey Item #9 asked them to respond to the following statements concerning distance programs:

- It's more convenient than face-to-face.
- I prefer distance learning.
- I have family obligations.
- I work full-time.
- It's more affordable than other options.
- Because I received a scholarship.
- If given a choice between taking a course online or via teleconferenced sessions, I prefer taking the course online.

Survey results were similar in both countries, with the majority of respondents choosing distance learning because of professional and personal obligations as well as affordability.

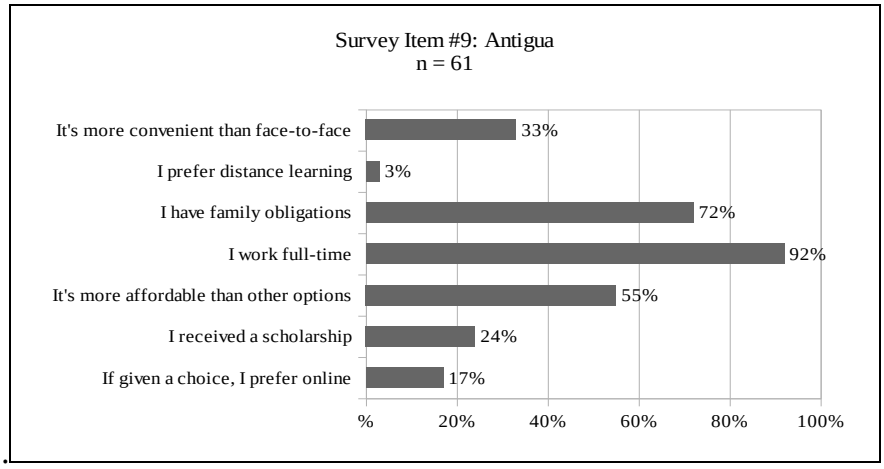

Figure 4. Survey Item #9: Antigua

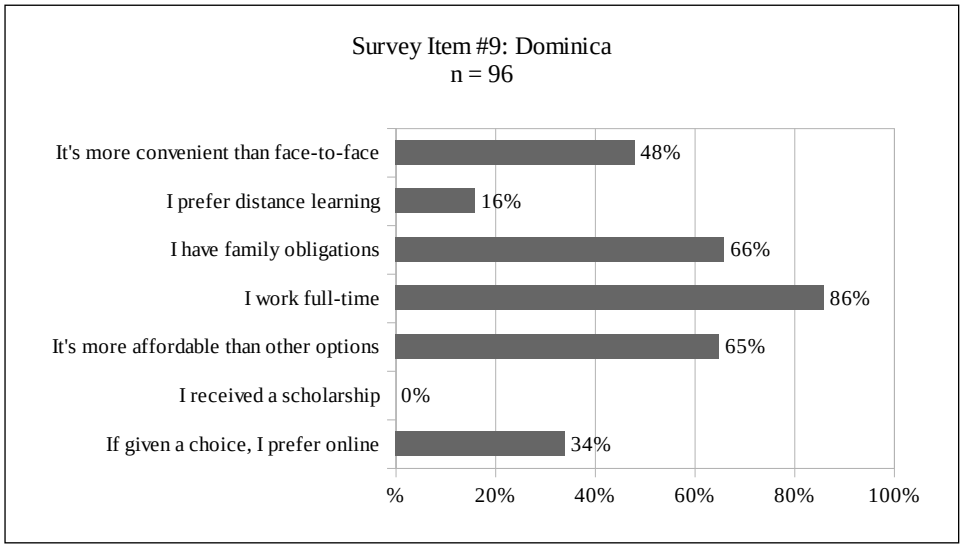

Figure 5. Survey Item #9: Dominica

Among respondents in Antigua, 38% agreed with the statement in Survey Item #9 that distance learning was more convenient than face-to-face instruction, while 52% disagreed with the statement. A greater percentage (47%) of Dominican respondents agreed that distance learning was more convenient, while 39% disagreed. The contrasting perspectives suggest giving further consideration to how UWI distance learners define "convenience." Open-ended responses to Survey Item #10 mentioned convenience, or balancing other aspects of professional and social life. Their responses implied that "convenience" was not defined in terms of independent study at their own pace, or at their leisure; instead, "convenience" meant that distance learning could fit alongside their other obligations.

Table 2

Survey Item #10 Responses for Antigua and Dominica

Survey Item #10: Is there another reason why you chose distance learning instead of face-to-face? (Please explain.)	
Antigua	Dominica
• The requirement for this course were less than actually enrolling in a university campus.[69] • Other than working full-time, no. • It's more convenient for my schedule. • Because of the convenience • Strong obligation at home. • Being a full time mother of two and is single I know I will be very uncomfortable leaving them behind because of their ages and probably my mind will be on them rather than my work.	• It was cheaper for me. • I was not ready to adapt to a new culture.[70] • The UWI site in Dominica offers the programme, which is convenient for most working individuals. • Financially affordable. • That's what's available. • I have to pay own course expenses. Has to work, as a result, has to do distance. • Because of the above-mentioned reasons (prefer distance; more convenient).

Participants at both sites attended teleconference sessions in person even though these sessions were available online. Some (35%) explained that they did not have access to computers at home or at work, and those with access at home mentioned the high cost of Internet connection. Others said they needed the support and motivation derived from a sense of being part of a class, or believed they learned better in the social environment of a physical classroom.

> For me, initially, when the courses start, I get off to a slow start. I'll be on semester break, and I'll be back in tune with doing this around the house, doing that on the job, and then, okay, school starts again, so I have to give up TV, reduce playing with the children, come up with a new schedule. So I'm always off to a slow start. However, once I get back into the classroom, and I see the others already ready, I say, "No, I have to catch up!" So that little internal competition boosts me to focus my energies more. But online, I'm not sure I will be able to get that same impetus from others. Because I might not be able to see if they have done work, [or] not done work, or if they're answering the questions and I have

[69] Contrary to the response that the requirements of the distance program are "less" than that of on-campus programs, both programs follow the same curricula, have the same course requirements, and administer the same exams to students on the same day. According to an administrator, distance participants may read fewer of the recommended/supplementary texts on the syllabi.

[70] This comment refers to migration, which is discussed later in this chapter.

> no clue what they're talking about—"I really need to do some more reading!"—and things like that. That's why I did the comparison to online. Just the interaction, and comparison [with whether] I could do without individuals in the [physical] class. (M.Sc. graduate)
>
> Some days are double classes or one two-hour class. I don't study as much as I should. I absorb very well from class. So I do some studying on the weekend and rely on what I absorb from class. (M.Ed. student)

The interviews offered further suggestions for understanding how UWI distance learners defined "convenience" in relation to distance learning. These learners were not defining "convenience" in terms of obviating travel, but in relation to managing obligations, particularly work and family. In other words, they were not defining "convenience" in relation to "space" or distance, but in relation to "time." In the survey results, most (75%) reported that they chose distance learning because it was congruent with meeting family obligations, and 95% agreed with the statement that they chose distance learning because they worked full-time.

> Sometimes I personally didn't have time to get here. These were domestic problems where the [administrative] officer didn't call me to tell me the class was canceled. Or the class was rescheduled, canceled, or [rescheduled the] time that I would have scheduled a [business] meeting, and I decided, "Well, I can't move the meeting again!" So there were some clashes. (B.Sc. graduate)
>
> Most people who do distance studies are people who work. So you have work life, home life, and college life. Fitting in life…. It was rough [balancing that]. Sometimes you have a frustrating day, then class in the evening. You spend a lot of times in the evenings doing assignments. Then after that, you're up all night doing assignments. (M.Sc. student)
>
> It was different in that, firstly, I never did anything via distance. There was school, and then there was a long break between exiting school and going back into the learning institution. So yes, there was a little adjustment in terms of discipline. But I was determined, so that was quickly dealt with. It was 15-20 years [before I returned to school].
> *Interviewer: "Discipline?"*
> Time management, and understanding the full effects of how it would affect my life now. I mean, I had a family, I had responsibilities. (M.Sc. graduate)
>
> It was more convenient for my family. At one time I was my [elderly] parents' only child, so it was convenient for me to take care of them. They were absent-minded, like leaving on the stove...so it was more convenient, actually. (M.Sc. student)

> The workload in distance education was a little easier. The difficult part about distance education is managing time. When I did face-to-face, I had a lot of time on my hands. I was just studying. (M.B.A. graduate)

These statements give a sense of the participants' experiences in the program. They were "non-traditional" post-secondary and graduate students in the sense that they were older and employed full-time. However, in distance learning, the notion of a "traditional" student has become an anachronism. The University of the West Indies Distance Teaching Enterprise (UWIDITE) distance program was originally designed for civil servants studying for qualification exams.[71] While today's Open Campus program is not specifically, or exclusively, intended for working adults, it accommodates the needs of this demographic, as the teleconference and tutorial sessions are scheduled after office hours. The participants described how they reallocated their time toward studying and attending the supplemental, in-person sessions.

This study also considered gender, particularly in relation to learner ecologies and migration. The majority of enrollees in the UWI distance learning program are women, and in the U.K. and U.S., the same holds true of tertiary-level distance learning programs. In order to understand the relationship between distance learner ecologies and gender, studies must consider household, specifically female heads of household. The population censuses reported that 37% of households in Dominica and 43% of households in Antigua, are headed by single women. A problem with the census definition, however, is that it includes men and women living alone as "single heads of household." When we look at households where the single adult is supporting three or more people, the percentage of households supported by single women is 45% in Dominica and 48% in Antigua.

[71] For the history of the UWI distance learning program, please see Chapter I (Introduction), Context of the Study.

One of the inherent challenges of researching Eastern Caribbean households is defining "household head" and "matrifocality" in a way that is relevant to the social context. Jamaican anthropologist Edith Clarke (1957) found "headship" an imprecise status and "household heads" difficult to identify objectively. Jamaican social anthropologist Michael G. Smith (1965) likewise argued that the difficulties of defining headship are directly related to the different structures and forms of households seen in different societies. He asserted that the features of households, and the status and role of household headship, vary cross-culturally; moreover, there is a distinction between dominance (actual influence) and headship (formal leadership). This distinction should be clarified among Antiguan and Dominican respondents in future research.

In this study, 51% of female respondents were single heads of household, defined as the sole economic supporter of a household with dependents. The respondents elaborated on the reasons why distance education met their needs. Women, in particular, appeared to believe that education would create more job security in an uncertain economic climate.

> I knew I would not be able to leave my young family. During that time, it would have been difficult to leave my family. I wasn't even thinking about leaving Antigua. I was working full-time at that time. I really needed a degree because without one, you don't have a safety net. (Female M.B.Ed. graduate)

> [Distance education] is going to go big real soon. Several people can go overseas, but you have a large percentage who can't go on campus. You have people who are married and have responsibilities. If you didn't have distance, I wouldn't have been able to complete the course. It's going to play a large part in the education of the country. Especially the old[er] ones. The young ones who are coming out of school, they may be able to go overseas. And paying for accommodations overseas adds up…. The cost of going to Barbados for one year costs five times what it cost for one year here [in Dominica]. (Female M.B.A. student)

> I believe a lot of working people in their thirties and forties, particularly women who want to have their domestic lives intact, will seek distance education. Men don't mind traveling and leaving home, but women tend to want to stay and keep it together, especially where children are involved. It will increase as people realize jobs are uncertain. You may be in a good job, but not have credentials, so [in a distance program] you can keep that good job, and get qualifications as you do. (Dr. Francis Severin,

Director, UWI Dominica)

> A lot of female teachers are single parents, so to leave to earn a degree is difficult…. Another stumbling block is the financial barrier of living on campus. It would mean taking a loan. The financial burden would be too much. (Female M.B.A. student)

> *Interviewer: Why did you chose distance learning?*
> Had a son. Going to university was a top choice, then I had him. [So] then I shelved the idea. I saw an ad in the paper. It was my last opportunity to do this—I saw it on the last day it was offered, too. (Female A.D. student)

The responses also suggested that women have less mobility because of their familial obligations, and the respondents described this experience. One of the challenges for distance learners was that some academic programs had partial requirements that entailed on-campus training in Jamaica, Barbados or Trinidad, which may have posed conflicts with personal and professional obligations.

> The course that I'm presently taking, I have to go down to Mona [Jamaica] in June, July, for a month, so for that period, I will have to juggle things. Like, my smaller sister is here now, so she would have to take over the responsibilities of the home…. It's inconvenient because I have to leave, not only that, I'm the person in charge of the maternity unit [in the hospital] here, so for that month I'm going to have to leave my work, leave somebody in charge of it, and sometimes that poses a problem, because [for example,] I just came back from holiday, and there was so much incident happened; so you're busy now trying to straighten out what happened when I was away for one month. (Antiguan M.Sc. student)

This female head of household with an eight-year-old child and elderly parents explained that a sibling would take over the responsibility of looking after their parents and her child while she was overseas completing her program. In contrast, a male graduate who also had children but lived in a nuclear household discussed the possibility of working overseas.

> I don't have any plans to leave, but my plan is to go wherever the opportunity is. So you find that I'll read the newspapers, and once the [economic] returns are okay, and would compensate for me not being here, [I'll go abroad]. I've already discussed that with the family, with the intentions of hopefully coming back.
> *Interviewer: Do you know of any classmates who left, or planned to leave Antigua after finishing the program?*
> I know of one, she didn't leave for any particular opportunity. She had gotten married and

> her husband got an opportunity, but she left knowing she could get a good job eventually.... She was doing quite well here. (B.Sc. graduate))

Evidently, the UWI distance learning program has made higher education more accessible to single female household heads. Previously, this demographic would not have had the time or financial resources to participate in full-time, on-campus programs. It is also more challenging for a single household head to migrate, even for a short period, and this was illustrated in the responses.

According to the survey results, most students considered emigrating for a short time within the Eastern Caribbean for the sole purpose of completing their studies. The survey asked whether distance learners had considered studying at one of the UWI campus countries, and more than half of the respondents (56% in Antigua and 61% in Dominica) had considered this option. The reasons cited for not emigrating were "convenience" and "affordability" of the local program. The survey also asked whether participants at some point had considered distance programs other than UWI. This was never a consideration for most students, but 30% had considered studying at one of the UWI campuses.

> Actually, yes. I looked at others. Even now that I'm thinking about doing my Master's, and I've already looked at others. I'm actually focusing back on University of the West Indies again.... I'm focusing on UWI again because of the cost, because it's cheaper to get a degree with UWI. I wanted to do it at another institution so my resume would look more rounded, not just West Indian-type learning, but it's cost-prohibitive. (M.B.A. graduate)

> UWI distance education and face-to-face hold the same weight. So employers would look at how individual markets themselves. An Associates Degree from Dominica State College is not as highly regarded as person who has done A Levels. Dominica State offers Associates Degree, while UWI offers degree programs. [Dominica State College] is also fairly young, so needs time to develop confidence in their programs. Quite a few from State come to UWI [sic]. (M.Sc. graduate)

Most respondents either worked in the corporate sector, or in education, and they reported that they were studying in anticipation of changing occupation, moving up within the same field,

or enhancing their credentials in order to strengthen their marketability. Although the Caribbean Community (CARICOM) has made it easier for professionals to work in other Eastern Caribbean member countries, the participants in this particular program were looking at opportunities within their own countries. The majority of the participants in the program work in education, banking, and civil service, which are sectors that more readily provide funding for professional development when available. This research finding demonstrates the relevance of considering "time" in the life cycle, when examining learner ecologies.

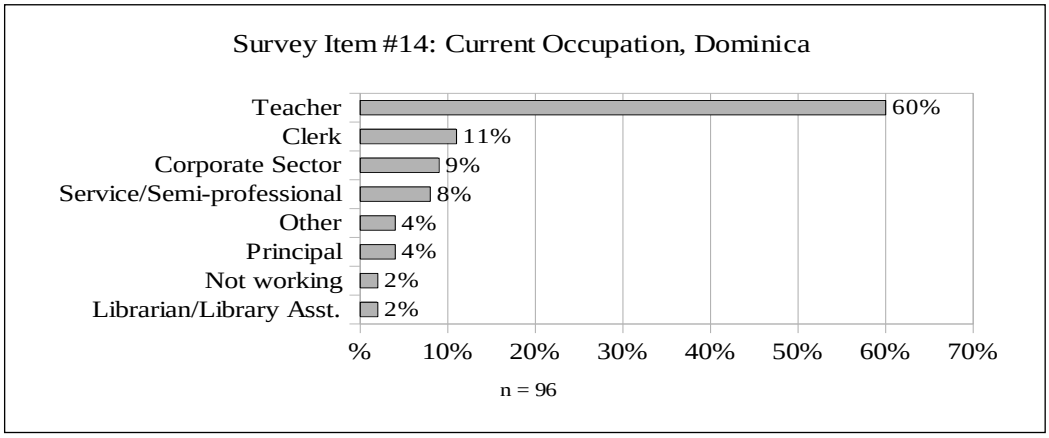

Figure 6. Survey Item #14: Dominica

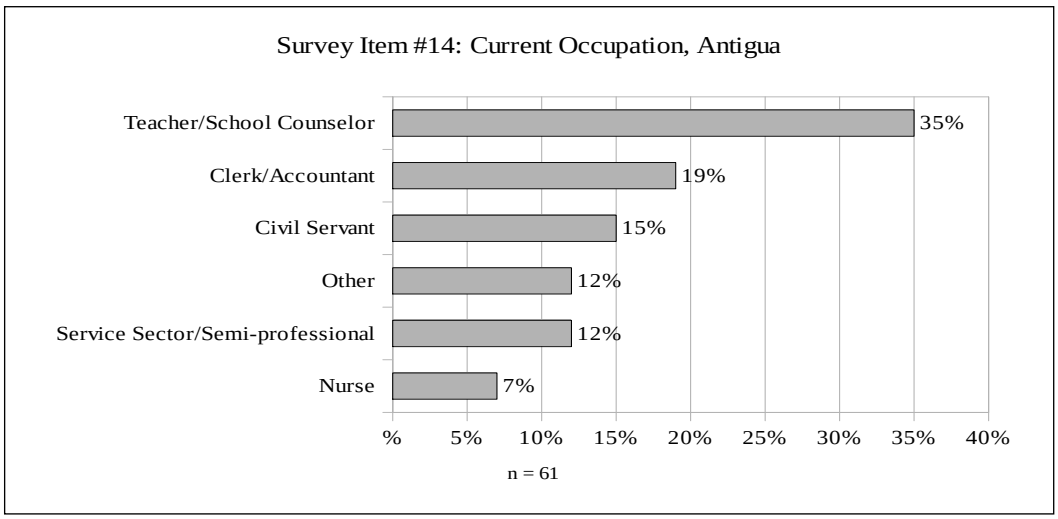

Figure 7. Survey Item #14: Antigua

As reflected in the interviews, the respondents believed that multiple credentials can build security in an unsteady job market. A teacher with 28 years of experience explained why she pursued a business degree:

> You reach a peak at some stage and say, "I need new challenges." And having a repertoire of experiences and having your ideas—I think I've made my contribution so far [as a teacher] in the classroom and can make it somewhere else. (M.B.A. student)

A mid-career corporate manager expressed interest in building qualifications that would allow her to pursue other opportunities within her company:

> [I'm studying] for further advancement in my working career, really, to better prepare myself to be marketable for other positions in my establishment. (B.Sc. graduate)

The majority of distance learners were mid-career professionals, and some were recognized in their field: among them were a head nurse in charge of an HIV counseling program, a manager at a major airline, and an international bank executive. A fellow participant commented on the number of mid-career professionals returning to the classroom:

> I've been surprised at the people who come. I would see some familiar faces and say, "Wow! *She's* in college?" I think a lot of people are not aware. They don't realize what it can offer them.... A lot of people aren't aware that BOE [Board of Education] gives scholarships and partial scholarships. Someone encouraged me [informed me about that]. (A.D. student)

Over half (59%) of the respondents aspired to change their occupations. Among those Antiguans who wished to change occupations 38% wanted to own their own business, while only one Dominican respondent (a woman) expressed interest in entrepreneurship.[72]

[72]In the population census, very few women reported owning their own business in Antigua, and in comparison with Antigua, a larger percentage of Dominican women were business owners. This could be a reflection of economic differences between Dominica and Antigua. In the census, "entrepreneurship" includes huckstering (working in the marketplace). Also, in areas where there are fewer opportunities for employment, Dominicans create opportunities in the informal sector or through temporary and seasonal work.

Table 3

Survey Item #6 Responses for Antigua and Dominica

Survey Item #6: Which programme or certificate are you pursuing?			
Degree or Certificate	Antigua n = 61	Degree or Certificate	Dominica n = 96
B.Sc. Management	54%	Business degree or certificate	49%
M.Sc. Counseling (Health/Education)	16%	Education degree or certificate	47%
B.Sc. Accounting	12%	Other	4%
Associates Degree (Business)	7%		
B.Ed. Education Administration	7%		
B.Sc. (unspecified)	4%		

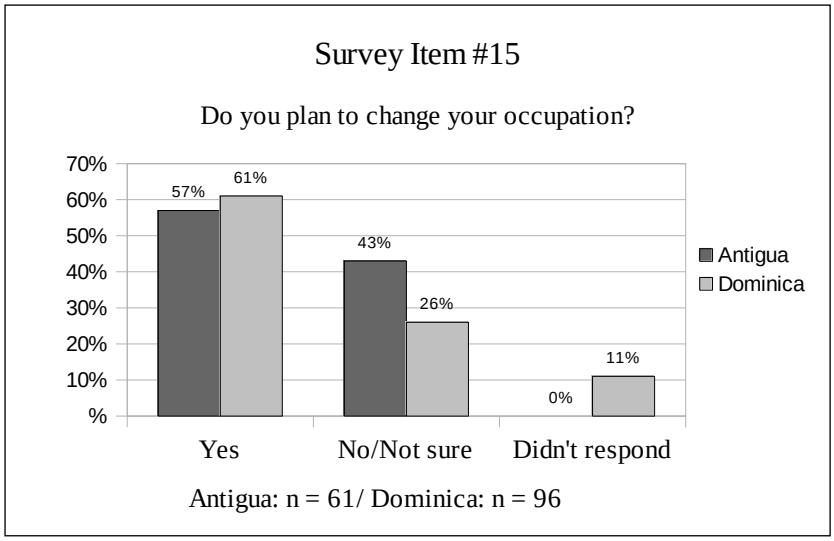

Figure 8. Survey Item #15: Antigua and Dominica

Table 4

Survey Item #15 Elaborated Responses, Antigua

Survey Item #15: Do you plan, or hope, to change your occupation? If yes, to what occupation? **Sample of Elaborated Responses from Antiguan Participants**	
Customer Representative	Financial Advisor
Junior Accounts Clerk	Yes. I always wanted to run my own business.
Guidance Counsellor	Yes. I would like to own my own business one day. A learning centre for children.
Book Scheme Manager	Yes. Entrepreneur
Journalist and Reconciliation Clerk	Yes. Aviations or Law.
Civil Servant	Yes. For Further Advancement/Opportunity for More Money
Customer Service Representative	Yes. To open and manage my own business
Hospitality Supervisor	Yes. Manage my own business.
Clerk	Yes. Accountant.
Staff Accountant	To become a professional accountant
Teaching	Yes. Human Resource Manager
Accounts Clerk	No! Not from that field just higher on that ladder.
Air Traffic Controller	Yes. Airport manager or airline management

Table 5

Survey Item #15 Elaborated Responses, Dominica

Survey Item #15: Do you plan, or hope, to change your occupation? If yes, to what occupation? **Sample of Elaborated Responses from Dominican Participants**	
Loans Officer	Yes 1) Consultant/International Business Manager 2) Design/technician – post-retirement
Secondary School Teacher	Yes, Economist
French Teacher in Primary School	Yes, Guidance Counseling
Teacher	Bank Clerk
Teacher	Yes, Managerial
Administrative Officer	Yes, Managerial Position in a business entity
Qualified teacher at primary level	Most probably a secondary school teacher or at a college or even as a school principal (or Education Officer).
Secondary School Teacher	Yes, Business Manager or Curriculum Development Officer
Teacher—Primary School	Work in Education, i.e., Curriculum development; Testing and Measurement Unit or IT Teacher

The data also alluded to a connection between time and how participants experienced the learning process. In an interview, a UWI Dominica marketing graduate described that the difference between studying on campus and studying in the distance learning program was that the former allowed more time for applied learning (a constructivist approach):

> There are a lot of opportunities. I believe the education system has trained us to be consumers and workers rather than entrepreneurs. I think UWI has done a good job trying to change that mindset when you go full time [on campus]. Part-time is different, because part-timers don't have enough time to develop that skill. The part-timer just wants to get the assignment done, rather than analyzing what they're doing. Most part-time programs don't give learners enough time to apply it to a real life setting. For example, we had projects where we opened our own businesses. Full-time is more creative, and you have a wider body of knowledge. [Due to] time constraints of part-time students, you may not see that happening.

Two respondents described the distance learning experience as broadening their thinking, but most focused on the pragmatic quality of course content and the practical need to fulfill course requirements. This illustrates one way in which the concept of time in the life cycle may influence how participants conceptualize their role as learners. As mid-career professionals, the participants were concerned with acquiring applicable skills rather than abstract knowledge.

The research findings further illustrate how different conceptualizations of time are experienced in the learner ecologies. The data described connections between time as defined by the life cycle (with particular implications for gender) and how a respondent's place in the life cycle impacts the learning experience. The findings also described the contrast between the organization of time in the work place and the organization of time in the educational institution.[73] The comparison between on-campus and distance experiences further suggests that time and space shape the learning experience and the role of the learner. The data also addressed the concept of "space" in relation to modes of instructional content delivery.

[73] The various conceptualizations of time are discussed at length in Chapter II (Literature Review).

Space

"Space" as a factor impacting learner ecologies can be considered in terms of physical distance and terrain. The majority of respondents lived in or near the capital cities where the DECs are located, and the researcher informally observed that most traveled using private transportation. The survey asked respondents where they resided, and the furthest commute to a DEC was 72km (44 miles).

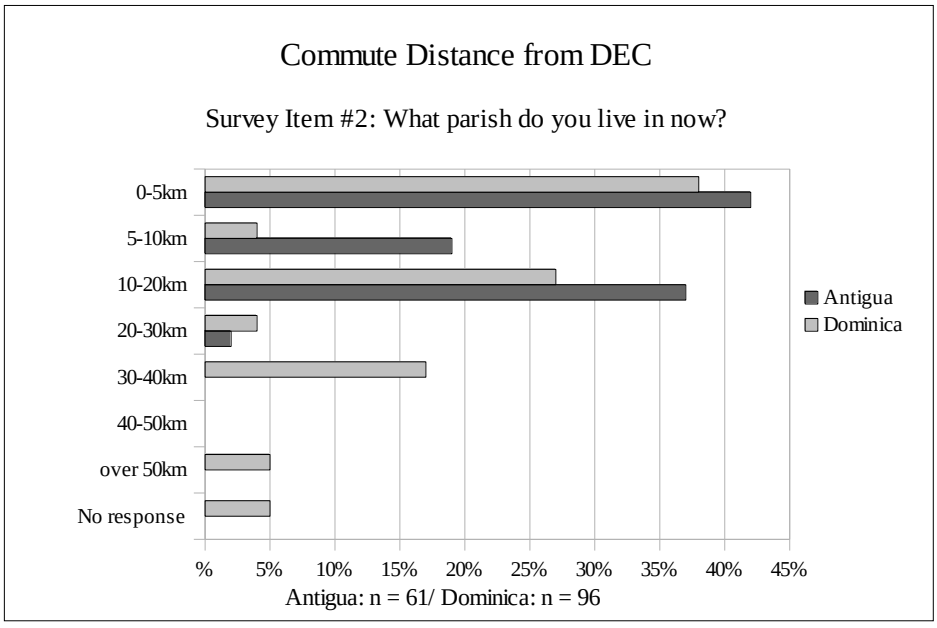

Figure 9. Survey Item #2: Antigua and Dominica

Distance becomes a factor in a challenging terrain where public transit is limited or precarious. Additional open-ended comments on the survey (Item #20) elaborated on the difficulties involved in traveling to the DECs for teleconference and tutorial sessions.

> The hours for the teleconferencing were difficult for me as I live some distance from the UWI center. It was hard to get transportation. Some additional materials like the course guide were not made available to us. Feedback on work presented was not given before the second assignment was given. Materials and information was not available at the library. (M.Ed. student)

> Some persons have to travel very far to attend to the face-to-face sessions. (B.Sc. student)

> My greatest challenge is with getting to sessions due to the distance I live from the faculty [facility]. Also, the number of days I am away from my students [sic]. (M.Ed. student)

One of the University's expectations for online course delivery is that it has the potential to minimize, if not eliminate, the need to travel to campus countries or commute to the Distance Education Centres. For some prospective participants, travel may be a significant obstacle.

> Most of our students [are] from closer to Roseau. It's not a big country, compared to say Jamaica, but a difficult country and difficult terrain to negotiate. So what might seem close might be farther because of the terrain one must negotiate…. I think it's too early to talk about, or speak about, although I suspect—and let us do a bit of extrapolation—I suspect as long as people begin, especially the younger folks coming from school—secondary school…as soon as they find out about this online [option], that they do not have to take several trips to Roseau, they don't have to be physically present and can still get an education, I suspect enrollment will increase especially among the younger cohort. I was very pleased to see students of 18, 19 years old—all of our students are in their thirties and so on—I found this year, we got some younger ones, almost fresh out of [secondary] school. And I think that that is going to increase as news about the online [option] spreads. (Dr. Francis Severin, Director, UWI Dominica)

The problem of traversing physical space is connected to the idea of social distance. Commuting to the DECs is challenging for low-income individuals who reside in rural areas and do not have access to private transportation. The data suggest that the participants represented a working-class or middle-class socio-economic status. While they may not have been from among the upper middle-class and wealthier members of society who study overseas, they were also not representative of the poorest members of society in their countries.

"Space" can also be examined in terms of global orientation and context relevance. The fact that the University was created as a regional institution is meaningful because it embraces the idea of the Eastern Caribbean countries' shared history, identity, and common developmental concerns within a larger geopolitical framework. At the same time, each country within the

University network has unique concerns related to its own workforce development or particular social, governmental, and environmental issues. This creates a challenge as the University's mission is to support academic scholarship and curricula from a "Caribbean perspective" while concurrently addressing local needs:

> Although the [distance program with a foreign-based university] is shorter than UWI, UWI is more balanced. I took a wide area of courses. For example, you need to take Business Law. I enjoyed interacting with other Caribbean students. You use a lot of American books…. You were able to see the relevance to what they were doing. [UWI] understood you more because they're in a similar situation. For example, for this Master's program that I'm doing [with a foreign university], some of the things they're talking about are not applicable to our situation. They talk about No Child Left Behind. (M.Ed. student)

> What sets UWI apart is its focus is more regional. We are offering education that is relevant, grounded in the Caribbean. When others come in as a non-Caribbean [educational institution], they usually either steal our programs, or try and shift their programs, or they do a lot of irrelevant [things]. So students begin essays: "In our country…" and they're talking about the U.S. (Dr. Ermina Osoba, Director, UWI Antigua)

Respondents addressed the advantages of studying in a distance program intentionally oriented toward a regional focus, alluding to the importance of intellectual exchange between Caribbean nationals. They also discussed the inherent disadvantages of studying at a distance, emphasizing that, in their opinions, independent learning still requires interaction as part of the learning process.

> The questions they were asking during teleconferencing was "work-based" or work-related, so there isn't a chance to get to know people. As opposed to on campus where you meet people from different Caribbean countries as well as North America. You get to see the way people do things. You get to see how it's one Caribbean, but every country is different. (M.Sc. graduate)

> Some aspects of online learning that are effective is that you can study at home, meet a variety of perspectives, read the comments of others, and have the option to think about it and give a more thought-out response. A major difficulty, I believe, is the expense of having the facilities in the first place. That intimate contact is something you don't have. As an educator, that's important. People may be in other parts of the world together interacting. As an educator, those are the two most difficult things. (M.B.A. graduate)

In theory, the blended learning program, using teleconference and tutorial sessions, brings together the Open Campus countries, but participants are still separated. The teleconference renders communication across classrooms difficult due to the quality of the technology as well as the lecture-centered design of the observed lessons. (Further observations of the teleconferenced lessons at various points in the academic year would be necessary to establish whether most are lecture-centered.) Another underlying question the study raised is whether participants in the Open Campus countries are engaged in a mutual exchange of ideas across countries in the network when all of the lessons and curricula originate from the campus countries.

This section discussed the research findings concerning constructions of "space" and presented examples from the data that demonstrate the different ways in which space—literally and conceptually—influences and shapes learner ecologies. The next section considers resources in learner ecologies, defined as human resources and as material resources.

Resources

The respondents expressed that isolation was one of their primary concerns about the program's imminent transition to online course delivery, and asserted that blended learning creates opportunities to engage in an interactive learning environment. They described how some classmates voluntarily met in person to facilitate collaboration on group projects, and most respondents stressed that synchronous ("real time") interaction was important to them:

> I've always compared distance [blended] learning with online learning. What I like about this [blended learning] is the face-to-face aspect of it: Meet in the classroom, do your teleconferencing and do your local tutorials. So there was a lot of face-to-face interaction. I couldn't see [studying by] myself. For me, [meeting is] a plus…. I like the mixture of not having to leave the country, but you should have to meet in a group.
> *Interviewer: What was group work like?*
> They were good. They were really good! We had fun. There were times when you had a group where you said, "I'll just get through this project just for the credits," but most of

> the times, the groups worked well. Apart from that, working in the groups has helped me [with] working with people in [my professional environment] in groups. (B.Sc. graduate)
>
> *Interviewer: Why not listen to the teleconference online?*
> You have to interact. Sometimes you need information clarified. So although you can't see them, it's a sort of classroom situation. They introduce themselves, what islands they're from. You make jokes, things like that…. If you need things to be clarified, you can ask [in real time]. I found teleconference helpful, but they don't have teleconferenced sessions often enough. Sometimes you have a local tutor, but not always. (M.Ed. student)
>
> Going to the physical campus was a plus, because you get to network with other Caribbean people. The networking in a North American campus would be different. I know quite a bit of people who've studied law at UWI Trinidad. That kind of advantage is big. That advantage is more than what I have if I study by distance, because by distance I'm only meeting other Dominicans. I saw ideas in Trinidad that we could have right here. (M.B.A. graduate)
>
> There was one [distance learning program] offered by a college in England where you pay your tuition and they send tutorial material, I think, online. I'm not very disciplined. If I'm not in front of the teacher,[74] I won't do the work. (M.Ed. graduate)
>
> The classroom size—i.e., the number of students taking the course—was small, so we were able to liase [liaison] very well with each other [sic]. (M.B.A. student) (Open-ended survey response)

When respondents compared on-campus programs and blended learning programs (teleconference and tutorials) with online programs, they regarded online programs as creating more distance between students and instructors. In the pilot interviews, respondents raised the issue of group work in distance learning programs, and described both the challenges and benefits of group projects and study groups for distance learners. Group work was, therefore, added to the survey (Item #18), and the researcher probed this issue in the interviews. Overall, the respondents described these collaborative experiences as beneficial to their learning experiences, and suggested that group work created a semblance of community. Although UWI students and graduates expressed the importance of interacting with classmates abroad, during observations of the teleconference sessions, students rarely interacted with the instructors and

[74] In reference to tutorial sessions.

their remote (or "virtual") classmates, as demonstrated in the following excerpts from teleconference session observations. These observations were part of the original research design, although the researcher did not develop a set of indicators to guide the observations (there was no observation protocol). Yet, observation seemed a necessary component of the research, and was juxtaposed with interview and survey data.

The teleconference is set up so that as the course is taught face-to-face at one of the campuses, a teleconference of the meeting is simultaneously transmitted to Distance Education Centres throughout the Open Campus network. It is possible to know all of the DECs participating because at the start of each session, a volunteer from each site checks in on behalf of the group to confirm that the technology is working. During the teleconference sessions, the researcher sat among the participants in the classroom of the Distance Education Centre, which was small enough so that both the audio transmissions and the participants in the physical classroom were audible. Participants across the various DEC sites communicate by speaking over a microphone and, likewise, participants in the same physical classroom could choose to leave the microphone off ("off mic"), restricting the conversation to those in the room. The researcher selected the following five excerpts from among the six teleconference observation transcripts, because they are the most representative of what was observed on site, are the most substantive in terms of looking at participant interaction, and include a fair amount of dialogue. These five excerpts give a general idea of the teleconference sessions, based on a limited time in the field, during the midway point of Semester 2.[75] The observations provided more information about learner ecologies in relation to time, space, resources, interactions, and the way participants conceptualized their role as learners.

[75] The academic calendar is scheduled as follows: Semester 1 is August – December, Semester 2 is January – May, and Summer session is May – July.

The first excerpt is from the observation of a teleconference session in Antigua. The teleconference originated from Jamaica, and included participants located at the Distance Education Centres in San Fernando, Trinidad, Cayman Islands, Anguilla, and Ocho Rios, Jamaica, among other sites. An audio-visual (A-V) coordinator, hired full-time by the DEC, is usually present during the teleconference sessions, but apart from resolving technical problems, does not participate. The excerpts illustrate how the classroom community dynamic operates in two realms: the physical classroom community at the Antigua DEC, and the remote classroom community.

At different points in this study, the researcher used the term "virtual" as synonymous with "physically remote" in order to raise a discussion about the concept of "space" and the idea of bridging disparate physical spaces. Based on the observations, the technology did not appear to bridge the geographic distance between the multiple classrooms participating in the sessions. In fact, the technical interruptions further complicated communication. Did attending in person satisfy the participants' sense of being part of a traditional classroom community?

In terms of "space," the study attempted to see whether participants created a classroom community with students within their physical classrooms at the sites. Based on the observations, it seemed that on-task exchanges between peers occurred when the lesson was discussion-oriented, and when some participants took on leadership roles. In contrast, lecture-based lessons did not provide opportunities for discussion.

Table 6

Teleconference Observation Excerpt #1, Business Foundation Course, Antigua DEC, 25 participants

Excerpt #1: *Business Foundations* teleconference session met at 5:30 pm. Twenty-five students (5 male and 20 female) attended. As students came in, they talked, and one man talked on his cell phone.

5:45 pm
Students listened to the voice of the instructor, and took dictation. The lesson was a review, to prepare students for an upcoming exam. (Students received the exam schedule today.) A participant in another country requested that the lecturer repeat himself. An Antiguan student commented off mic, "He always repeats." The lecturer defined terms and students listened. As he lectured, students stopped taking notes. There were some side conversations, and two people were writing. A participant in another country said, "We're not understanding anything you're saying." The instructor repeated himself, and students in the room took dictation. Shortly after, a classmate in another country asked, "Could you repeat that?" The instructor summarized and students took dictation. He spoke slowly, with pauses, suggesting that perhaps he expected that students were taking dictation (or perhaps he could see students in his physical class taking dictation). A participant in another country asked, "Are you going to talk about *money losing*?" The instructor replied, "Later," and reviewed the agenda. Some students in the room harrumphed or made side comments when the instructor said, "Honest legislation leads to honest government in relationship to minimum wage laws." The laughter of Bajan students (students in Barbados) was audible, but students did not comment beyond that. A participant in another country responded, "We only got the part when you were talking about trade unions, and then we were disconnected." The lecturer reviewed what he had said. "I'm going to ask you about the Keynesian model on the exam, with a properly labeled and drawn diagram," the instructor advised. "Any questions on Keynes labor market analysis before we move on?" In the room, an exasperated Antiguan student commented aloud (but off mic), "Move on! Move on!" Other students in the room fidgeted and conversed together.

6:25 pm
The instructor spoke more slowly and repeated, perhaps implying that students were to take (or were taking) dictation. The interruptions continued.

St. Lucia [on mic]: We lost you again.
Instructor: Where did you lose me?
St. Lucia [on mic]: St. Lucia online. Can you repeat number two, please?

6:45 pm
While the instructor described scenarios and defined terms, the Antiguan students talked and fidgeted. Two looked at the course textbook, but some of the other discussions were

not on-topic. Once the St. Lucian students had caught up, the instructor continued and students took dictation.

Instructor: You can read on the Keynesian product market on your own.

6:55 pm
Students in the room cross-checked their notes with each other.

Instructor: Any questions?
St. Lucia [on mic]: We were disconnected again right after you said ~ .

The instructor repeated from where the St. Lucian student indicated.

St. Lucia [on mic]: You're going too fast.

Off mic, an Antiguan student exclaimed, "What!" and shucked her teeth. Students in the room began speaking animatedly.

Instructor: Any question before we move on to next model?
Antigua [off mic]: No! Move on!
Instructor: People are tired, people are very tired after a long, hard day!

Even after the instructor moved on to the next point, the students in the room continued talking. When he slowed his speech, perhaps indicating that students in his room were taking dictation, the students in Antigua quieted.

Instructor: I will speak for a few minutes, and then I will give you the notes.

Students talked and laughed. Then the instructor stopped and started again.

Instructor: The framework is an integration (pause) the framework is an integration of the product (pause) and financial market…

Students in the room took notes.

Instructor: Application becomes important, as you know by reading your study guide, and practicing questions. Next level—people are tired! People are yawning!

The instructor's sudden remarks described what students at the Open Campus sites could not see. The students in Antigua laughed, then returned to taking dictation.

St. Lucia [on mic]: St. Lucia online. We got cut off—after "the money market—"!

In Antigua, the room erupted in laughter and exasperated exclamations. The instructor good-naturedly repeated the section of his lecture.

> Instructor: Did you get that?... People are sleeping here, around me!
>
> The students resumed taking dictation. Some students waited as the instructor elaborated on one point.
>
> Instructor: Let us continue. Let me explain.
>
> As he explained, some students in the room began packing their belongings. Gradually, more students began to talk and four continued listening. Conversations were not on-topic, but none of the students left the room until the instructor said "Good night."

The first excerpt provides a sense of the instructor's distance or remoteness, literally and figuratively. Students were taking dictation, recording the information for memorization, or replication, rather than processing or synthesizing the material. The instructor did not engage participants in discussion. In terms of the concept of time, it was a synchronous environment, not different from a classroom. In terms of the concept of space, the participants were connected technologically, but there was a communication gap, and the instructor was unable to gauge responses from the participants across the dispersed Open Campus sites.

During the observation, the participants in the physical classroom did not utilize their proximity to enhance their learning experience because they were focused on taking notes for the exam. This is an example of how the lesson design can shape the way students perceive their role. In this example, students perceived their role as acquiring the requisite information for the exam.

The second excerpt is from an observation of the teleconference course *Introduction to School Administration.* All of the participants at the DEC in Antigua were professional public school teachers. The excerpt demonstrates the dynamic of interaction and communication in dispersed classroom environments.

Table 7

Teleconference Observation Excerpt #2, Introduction to School Administration Course, Antigua DEC, 4 participants

Excerpt #2: *Introduction to School Administration*

3:30 pm
Three female participants gathered for the class, and the lecture began immediately. Before long, the participants in the room noticed a discrepancy in the lecture and discussed it, off microphone, among themselves.

First Teacher: Did we miss a class? He's saying, "last week we did ~."
Second Student: You mean Mr. [A-V coordinator] don't call us!
AV Coordinator: I called at 4 pm.
Second Teacher: We didn't know about it! It wasn't written on anything!
First Teacher: We need to ask this man where he's starting from.
Second Teacher [to A-V coordinator]: How come the teleconference is not on the timetable?

3:52 pm
Ocho Rios [on mic]: Where are you now?
First Teacher [off mic]: [Laugh.] I thought it was just us!
Instructor: If you go to your PowerPoint presentation...
Second Teacher [off mic]: We didn't get that.
Third Teacher [off mic, to A-V coordinator]: You got a PowerPoint for us?

The audio-visual coordinator did not respond. One participant left the room.

First Teacher [off mic]: Let me ask…

The audio-visual coordinator rolled down the projection screen, and the PowerPoint presentation appeared, but there was a "window" covering it. The participants in the room continued their conversations off mic.

First Teacher [off mic]: Last night, that was the discussion we had.

4:00 pm
Third Teacher [to A-V coordinator]: Can you close out your virus protect window?

The audio-visual coordinator closed the window on the screen from his computer. As the instructor lectured about corporal punishment, the participants in the room began their own on-topic discussion.

4:05 pm
Two of the participants discussed whether they would defend their own son if he were

physically disciplined by a policeman, and the legality of it. One student in the room copied the PowerPoint slide. An Open Campus participant at another site asked the instructor where he was in the slide presentation. The instructor described the PowerPoint slide and summarized the presentation.

> Ocho Rios [on mic]: I don't believe the action was unconditional love.
> Instructor: Good! You guys have your values straight.

Within the room, the participants commented off mic about the instructor's analogy of throwing a child in the water in order to teach him how to swim.

> First Teacher [off mic]: They talking about dropouts who never contribute anything.
> Second Teacher [off mic]: But you thinking about the material thing, and not getting the emotional!
> First Teacher [off mic]: I think every parent, every child isn't affected emotionally.
> Second Teacher [off mic]: I don't think so! Some have no dad and no mum, and they still come from a good family. And some have both parents, and the dad has no time.

4:15 pm
One of the participants in the room talked off-topic with two primary school-aged girls who had entered the room earlier with one of the participants. Participants in the room continued an on-topic discussion between themselves.

> Third Teacher: It depends on age group. We think teachers can make an impression, but at a certain age group, they'll say that's old-fashioned.

4:17 pm
The instructor talked about identifying "at-risk" students. Participants in the room continued their discussion off mic.

> Fourth Teacher [off mic]: You know, teachers too can affect students' self-esteem. We're working in a very stressful environment. You hit "hard, hard," and the child may be really trying, and feel defeated. Some teachers don't care.
> Second Teacher [off mic]: I see it every day!

The participants in the room continued the discussion among themselves, while a parallel discussion continued between Open Campus participants in the teleconference class at large. The participants in the room listened to their remote classmates speak over the microphone, but responded off mic.

> San Fernando [on mic]: This could be because they're not accustomed to using English at home. They use patois and can't express themselves at school.
> Second Teacher [off mic]: They can't transfer [the language].
> Instructor: Any point you need to add?

The instructor proceeded to call on each Open Campus site to add a comment.

Instructor: In your experience, why do children drop off of school?
San Fernando [on mic]: Financial.
Third Teacher [off mic]: You find some drop out because they're frustrated.
First Teacher [off mic]: You have the microphone there!
Third Teacher [off mic]: One student of mine, he told me he want to be sixteen so he can be out of school.
San Lucia [on mic]: What's the question?
Instructor: You're breaking up.

One of the participants in the room spoke into the microphone.

Third Teacher [on mic]: I think many of us students drop out after failing the CXC [Common Entrance] exam. They become frustrated, because they haven't achieved what many have achieved. They don't get support they need, and they get frustrated!

In Antigua, the four participants in the room applauded.

Instructor: Good, good!

The participants in the room continued discussing the difference between students who live in poverty but want to continue basic education, and students living in abject poverty who want to drop out of school. One of the participants changed the subject, asking whether anyone knew if the grades for *Business Law* had been posted. The participants in the room laughed and discussed the other course.

4:30 pm
San Fernando [on mic]: Repeat the question please.
Instructor: Why does sexism cause adverse behavior to drop out of school?
Second Teacher [off mic]: We have persons who come one week, and not another week.
San Fernando [on mic]: We're not trained to deal with male students. Teachers favor girls.
Third Teacher [off mic]: That's true! And they don't have a male father figure.
Second Teacher [off mic]: When they go to school, they don't see a male, they see that same female [figurehead as they see at home]! If the teacher isn't a fair person, the boys get wronged!
Third Teacher [off mic]: Boys are generally disgusting. But if a girl makes a complaint, we tend to believe the girl.
Second Teacher [off mic]: My son's teacher told me he favors boys.
First Teacher [off mic]: Not only that, the quality of the lesson is important to keep their interest.

4:25 pm
Second Teacher: How is it we know all these facts, but nothing is improving [in schools]?

Third Teacher [speaking into the microphone]: I think, as well, school is not catering to those who are not academic-minded. If a student excels in crafts and woodwork, that can contribute to lack of interest. My student told me, "Everybody knows I use drugs. I can't wait until I sixteen, so I can leave school!" So the Ministry should look at junior secondary schools, and look into how such boys can be catered for.
Instructor: Good! Good example.

Participants in the room listened to the instructor elaborate, while taking notes.

4:40 pm

Instructor: Any comments on this one? What can we do to create these [social] rules?

The instructor called on each Open Campus site for comments. Participants in the room began discussing among themselves students' disruptive behavior at school.

Second Teacher [off mic]: Some misbehave because they're hungry…
First Teacher [off mic]: It's the background of the student.
Third Teacher [off mic]: I had a girl exposed to domestic violence at home.... She did the role-playing of it too well.... Eventually, her situation improved.

On mic, a participant at another Open Campus site discussed "manners."

The participants in the room continued their discussion about domestic violence, and corporal punishment as a disciplinary method in school.

5:08 pm

San Fernando [on-mic]: I know a teacher who can't discipline...
Third Teacher [off mic]: When she says "jumping up" what does she mean? [She should] put an end to [misbehavior] instantly!

The participants in the room continued discussing, off mic, among themselves, discipline and corporal punishment in school.

Third Teacher [off mic]: I haven't used a strap in a long, long while.
First Teacher [off mic]: They make their own punishment.

The participants in the room discussed among themselves the need for teachers to set rules. They began debating whether a case where the child was beaten by the school principal was justified.

6:00 pm

The instructor asked for feedback about whether participants had received the course material. Participants in Jamaica and Anguilla said they had not received it. Students in the room began packing their belongings.

St. Lucia [on mic]: We don't understand the term "context management."

> The instructor clarified the term. Meanwhile, students in the room sat ready to leave.
>
> Instructor: Any questions, you can email me.

The second excerpt is different from the first in the sense that participants were capitalizing on their physical proximity and carrying on their own parallel discussion alongside the teleconferenced discussion. They were connecting the lesson content to their own teaching experiences, which exemplifies a constructivist model of learning. The excerpt is an example of how the participants used peer interaction as a resource. Their conceptualization of their role in the remote (or "virtual") class at large seemed to be an occasional obligatory comment, but their role in the physical classroom appeared less passive compared with that of the participants in the first excerpt.

As discussed in Chapter II (Literature Review), the participants in the teleconference session did not have the advantages of an asynchronous learning environment, such as a Web-based Discussion Board; the teleconference session is a synchronous classroom environment without a physically present instructor. The second excerpt suggests that students can maximize the interactive quality of the learning experience if the lesson creates an opportunity for peer interaction, such as a discussion format.[76] This excerpt demonstrates a lesson that is a lecture and a discussion, and the lecturer seemed to be using examples or anecdotes to illustrate broader concepts. The participants extended this model to their own interactive discussion.

Peer interaction is particularly valuable in teacher education programs because teachers usually work in isolation from other staff, and the opportunity to discuss experiences and ideas with colleagues is beneficial to their professional development. A question arises as to how well

[76] The lessons in the tutorial sessions observed were also discussions, but the interactions were between student and instructor, and never student-to-student.

participants in the future will be able to interact online unless the lesson design encourages them to apply their own knowledge in the process of synthesizing the material. The studies on distance learner interaction by Beasley and Smith (2004) and Cramphorn (2004), which were discussed in Chapter II (Literature Review), concluded that constructivism doesn't necessarily come about naturally. Rather, students should be made cognizant of their instrumental role in the learning process, which was a novel experience for most of the students they observed.

Excerpt #3 is from a teleconferenced Social Science course, *Social Research Methods*, at the Antigua DEC. The participants included students at DECs in Montego Bay, Jamaica, and St. Lucia, among other Open Campus sites. In Antigua, a small group of three women and one man were in attendance. The observation reflects challenges in communication because of technical issues as well as the nature of a dispersed network of classrooms.

Table 8

Teleconference Observation Excerpt #3, Social Science Research Methods Course, Antigua DEC, 4 participants

Excerpt #3: *Social Science Research Methods*

8:00 pm

Montego Bay [on mic]: Did you go over any questions over the last five minutes? We were cut off.

The instructor recapped what he said. He recommended that students go to the mini tab website, which gave free access to a trial program for 30 days.

St. Lucia [on mic]: Which one is more beneficial to us: SPSS or mini tab?

The Antiguan students in the room responded off mic to their remote classmates.

First Student: Oh, Lord! Any one!
Second Student: Is that St. Lucia!?

Two students in the room looked at the course textbook.

Instructor: Could the student tell me if I answered the question or not? [The instructor paused.]…I assume silence is consent.

A classmate at another Open Campus site broke the silence and asked a question about defining *operationalization*. The instructor reviewed the term, referring to Unit 4. Two students in the room read the course textbook while the instructor spoke.

Instructor: I will put on the website a few sample questionnaires and ask students to label what type of survey scale is it. I want you to pay attention to scales in Unit Four. Pay attention to those things in the reading material. Bet your bottom dollar it will be on the exam: something on question development, question design….

Three students in the room took notes while one quietly sat with eyes closed.

8:30 pm

Instructor: I've given a summary of Unit 4. What I want to do now is move on to Unit 5 and Unit 6.
Montego Bay [on mic]: The last thing we heard is that we should look at question design.
Instructor: You're asking me to go way back.

An unidentified voice interjected: "Please be aware, we'll be able to listen to the teleconference at the website in 24 hours."

Instructor: I lost my train of thought. I'll be back to you shortly.

In Antigua, the students in the room expressed frustration with all of the interruptions.

First Student: [shucked loudly]
Second Student: When we reach nine o'clock, let's go!

The instructor announced his return by explaining what participants in the Open Campus sites could not see.

Instructor: I'm battling flu here and needed to ease some congestion. I lost track because of the interruption.

The instructor repeated that students could get a "replay" of the teleconference on the website.

8:40 pm

In Antigua, two students who were not in the course came into the classroom to say "hello" to one of the participants.

8:45 pm

Two participants left the classroom and went outside to talk with other students.

8:50 pm
The instructor discussed sampling "element" and "cluster." As he spoke, a student in the room preempted his words aloud [off mic]. One student looked at the course textbook while the other student examined the University's academic calendar.

> Instructor: Because I'm speaking about these things, don't be surprised if I throw it in the exam. People have to listen to the teleconference…

8:55 pm
> Jamaica: Mona online. We're having technical difficulties. We'll go back and listen to teleconference.

The instructor explained where he was in his lecture since participants in Mona, Jamaica had missed part of the explanation when their transmission was dropped. Next, the instructor explained problems inherent to random sampling by using the example of a telephone book ("...abandoned house or tenant died...duplicate listings...clustering of elements, et cetera").

9:05 pm
The instructor reviewed the different types of sampling. He rephrased but did not repeat himself verbatim. When he named disadvantages of probability sampling, a student preempted him aloud [off mic].

9:15 pm
Students returned from talking with colleagues outside of the classroom. One student took notes as the instructor reviewed types of sampling. Another student studied his cell phone.

> Jamaica [on mic]: Could you repeat that, sir?
> Instructor: We have another few minutes left [a student in the room shucked loudly]...to address another issue, if you get it right…clustering and stratification.

One student in the room packed her belongings and put her head down on the desk as the instructor finished speaking. No one left until the unseen instructor dismissed the class with "Good night."

The participant asking about SPSS and mini tab at the beginning of the third excerpt hinted at her level of familiarity with computer software, which becomes of greater important as distance learning programs, particularly online programs, require that students work more autonomously. The participants may have been receiving hands-on computer and software training at the DEC computer labs, but the researcher did not confirm how they were currently

trained and how they will be trained to use an online interface.

Similar to the first excerpt, the instructor in this third excerpt was reviewing and summarizing material that would appear on the exam. Because the observations took place toward the middle of the semester, it is possible that the lessons were less instructor-oriented at other times during the academic year. The third excerpt also illustrates the technical interruptions that broaden the gap between the teleconference point of origin and the Open Campus classrooms. In this example, the students were also interrupted by phone calls, and there appeared to be much extraneous activity during the teleconference. The physical space between the participants and the instructor made it easier to engage in extraneous activity, so this excerpt demonstrates an environment where the technology did not bridge the dispersed classrooms.

The participants did not form a classroom community similar to that described in the second excerpt. Yet, interestingly, the participants in this third excerpt came to the session in person even though the lecture was available online, and waited for the formality of the instructor dismissing the class. Perhaps it was out of custom that the participants came to the session and followed the protocol of a traditional classroom (up to a point). There is no established model for how a class should conduct itself during a teleconference session, so participants shape that environment, and perhaps the social dynamics of each classroom is different.

Excerpt #4 is also from an observation at the Antigua DEC. The teleconference of the course, *Global Issues*, was the second session since the beginning of the school semester. Twelve students attended the teleconference session in Antigua, joined by participants at a DEC in Mona, Jamaica, among other Open Campus sites.

Table 9

Teleconference Observation Excerpt #4, Global Issues Course, Antigua DEC, 12 participants

Excerpt #4: *Global Issues*

5:40 pm
For the first few minutes, there was a role call and the various Open Campus sites checked in. Two students in the room tape-recorded the session. (Audio files of the teleconferences are also posted online.) During the session, students in the room could see a PowerPoint presentation, which the instructor controlled remotely. He advised students on the nature of tonight's presentation.

> Instructor: We are not using teleconference as a means of transmit[ting] information. We're highlighting.

The instructor gave a list of items expected in a timeline and explained that the course would include four "kinds of activity": exam, assignment, quizzes, and discussions. He verbally listed the components of Module 1: "current issues," "scientific methods," and "methods, theories, and models." A student in one of the Open Campus sites explained that she had opened the quiz online, but then "closed the box because my boss called me to do something else." Now she needed the quiz reopened. She added that students in her group could not see the PowerPoint presentation that the instructor was describing.

> Instructor: The technology is our slave, and not our master, so we should be able to be able to be amenable and override….

A student in another Open Campus site asked if the multiple-choice exam would be online. The instructor explained that the exam was going to be administered on printed sheets of paper. The instructor began comparing it to a common entrance exam when the teleconference was interrupted.

6:00 pm
The A-V Coordinator telephoned the site from which the teleconference was being transmitted, and the teleconference resumed 2-3 minutes later. At this point, the instructor was in the process of using the human eye as an analogy, and explained how the eye functions. Students in the classroom copied the PowerPoint slide defining "observation" according to Kant. Whenever there was a background noise or whenever a microphone somewhere inadvertently picked up ambient sound, the instructor stopped to ask whether there was a question, but no one responded. Participants in the room listened but did not take notes.

6:25 pm
> Mona [on mic]: Jamaica online. Are you going to explain the things on the screen? I don't have enough time to write it down.
> Instructor: The slides of the lecture will be available on Google.

Mona [on mic]: On Google? Thank you!

The instructor used a pointer as he went through the PowerPoint presentation and told the class that they were going to have to skip the part of the lecture about Galileo. In Antigua, students in the room appeared frustrated as the instructor remotely fast-forwarded through the slides. One student in the room threw her pen down on the desk.

6:40 pm
Six of the students in the room began conversing among themselves [off mic]. One student went outside to talk on his cell phone, and then left the Distance Education Centre shortly thereafter. Another student in the room silently watched classmates (perhaps while listening to the instructor), and two other students in the room discussed the class schedule.

6:45 pm
Two students in the room continued an off-topic conversation, and one student listened to the instructor's lecture.

6:50 pm
A student in the room received a call on his cell phone. When he answered the phone, the A-V coordinator nonverbally signaled for him to go outside.

6:55 pm
Mona [on mic]: Will your lecture be available to us online?
Instructor: Yes, on Google.
Mona [on mic]: I was asking if it will be *online*.
Instructor: Yes, I'll make it available.

In Antigua, students in the room laughed. When the lecture continued, a different student's voice from Mona, Jamaica interjected with a question.

7:00 pm
Mona [on mic]: When someone designs a bomb, wouldn't he design it with a purpose in mind?
Instructor: Every technology has a goal.

One of the students in the room stood up to leave early and bid her classmates goodbye.

Student [off mic]: Enjoy! [laughing] I didn't understand it all!

The students remaining in the room laughed.

The lesson in Excerpt #4 began with the instructor informing participants that the session is a review for the exam ("We are not using teleconference as a means of transmit[ting]

information. We're highlighting.") The phrasing — "transmitting information"— suggests that the usual format is something other than a discussion, or interactive experience. In Excerpt #4, the technology interfered with the instructor's desire to describe the PowerPoint slide, and interrupted his train of thought. He could not see what was happening in the Open Campus classrooms, so even ambient noise was distracting. The challenge of "space" in terms of distance became apparent in this excerpt, as the lecturer could not read the reactions of frustrated participants in the dispersed classrooms. The participants' role was taking dictation, rather than actively responding to the information. Although this particular lesson may not be representative of other lessons outside of the mid-term examination period, it gave an idea of the nature of the exams, and the importance of the exams in the program.

Excerpt #5 is from a teleconference session in Antigua. The course, *English for Academics*, aims to strengthen expository writing skills in English. Applicants to the UWI distance program are required to pass an English proficiency examination, and although English is the language of instruction in Antigua and Dominica, patois and creole are part of most participants' linguistic background. There are also Open Campus participants whose first spoken language is not English.

Table 10

Teleconference Observation Excerpt #5, English for Academics Course, Antigua DEC, 16 participants

Excerpt #5: *English for Academics*

The teleconference originated in Trinidad, and included participants from Grenada, St. Vincent, and Dominica, among other countries. During the observation, 16 students attended the teleconference session: 13 women, and 3 men. The participants took notes as the instructor, based in Trinidad, explained the content of the mid-term examination.

6:00 pm

Instructor: If you're redoing this course, it doesn't mean you don't have to do the activities and quizzes online…. There will be two quizzes each worth 5% of the total class grade…. You will write about one of three topics for the mid-term exam. Your thesis statement is important…. The three topics for the mid-term exam are: Caribbean Entertainment, World Cup Cricket, and Distance Education.
First Student [off mic to Second Student]: I don't know anything about those topics!
Second Student [off mic to First Student]: Distance education, maybe.
Instructor: I will be grading on process analysis and classification…
St. Vincent [on mic]: Did you mention that the 14th of March is a public holiday in St. Vincent?
Instructor: It's still an exam date. In Trinidad, that happens a lot, because other countries have less holidays but we have to come out and do exams.
Grenada [on mic]: My e-tutor hasn't been putting up presentations on each unit.
Instructor: Post a note about that on the forum.
Grenada [on mic]: Thirty-five days and 18 hours our tutor hasn't been online.
Instructor: I will email the course coordinator.
Dominica [on mic]: I'm trying to find out who the tutor is.
Instructor: Could you send another email?

Meanwhile, participants in the room began speaking off mic at the same time. Their animated exclamations protested the seemingly long amount of time spent discussing two students' administrative problems as the rest of the class waited for information about what the instructor expected as far as content for the mid-term essays.

In terms of bridging "time" and "space" across Open Campus classrooms, the excerpts raise the question of whether the teleconference could be used more effectively, or whether the

nature and quality of the technology itself limits the potential for interactive or collaborative learning. Teleconference sessions require that participants simultaneously navigate the immediate, physical classroom space and the remote classroom spaces of the Open Campus. During observations, when participants communicated with the instructors, it was mainly to clarify administrative information (e.g., material covered on the mid-term exam) or to ask the instructor to repeat parts of the lecture while the participants took dictation. This can be interpreted as demonstrating how the participants perceived their role, as well as how they perceived the lecturer's role; it suggests an expectation that the experience should be, in some ways, similar to a traditional, instructor-centered classroom.

When listening to teleconferences together, sometimes peer-peer interactions or conversations were not on-topic. During the *Introduction to School Administration* teleconferenced course session (Excerpt #2), participants began an on-topic discussion aligned with the instructor-led discussion. Their comments were insightful, but they only shared a small portion of their discussion with the remote (or "virtual") class at large. Technological failures frequently interrupted the flow of lectures and conversations, which appeared to make it challenging for participants to get a sense of their remote classmates' identities and directly engage with them. In this environment, communication seemed to be predominantly between instructor and student, rather than peer-peer interactions. During nearly all of the sessions, instructors stopped to ask for comments, sometimes calling on groups of participants by country, but participant contributions were rare. The dual enactments of space had an effect on interaction and communication.

In other words, with the teleconferencing, the remote classrooms were connected by technology, but that technology was not facilitating communication. As described in Chapter II

(Literature Review), technology can be used to maximize communication between peers in an asynchronous environment, such as a Web-based discussion board.[77] Synchronous online "chat" and video conferencing can achieve this as well. In the observations, the synchronous teleconferencing technology was not applied to maximize communication and interaction. This was due to several reasons: class sizes, lesson design, technical malfunctions and possibly due to participants' expectations. The respondents in this study said that the interaction of a physical classroom environment was important to them. The value of observing the sessions as part of the data collection was that it clarified a discrepancy between what the participants said was important in a learning environment, and what they experienced. It suggests that the face-to-face component only sometimes results in on-task peer interactions.

Some distance learning courses feature tutorial sessions rather than teleconference sessions. The tutorial sessions are part of the "blended learning" design: Students independently study using print material, but can also attend in-person tutorial sessions at scheduled times at the local Distance Education Centre. The researcher observed four Education tutorials and two Business Management tutorial session at the Dominica DEC. During these sessions, the participants sat at desks in rows or formed a circle and the researcher sat among them. The tutor facilitated from the front of the room or sat in the circle with participants. During these sessions, the discussion focused on the textbook material, and in these particular sessions, participants' comments were about material in the course textbook; the participants did not contribute on-topic anecdotal comments, for example. As well, there were no off-topic discussions—attention was focused on one speaker at a time. In the tutorial sessions observed, interactions were between instructor and participants, and not between participants. The participants addressed the

[77] Web-based discussion boards (WDBs) are discussed in the Study of Distance Learning section of Chapter II (Literature Review).

class in general, but questions and responses were usually directed toward the tutor. They did not directly engage each other during these sessions, but some students sat together and shared textbooks or class notes.

Students congregated before and after the tutorial sessions, and the Dominica DEC's environment was particularly conducive to socializing and informal group meetings. This was an example of informal use of space, which is a significant dimension of learner ecologies because it supports peer-peer interaction and a sense of community. As reflected in the literature on distance learning environments, it is otherwise generally challenging to build classroom community and encourage peer interaction. It is possible that the tutorial's formal structure for classroom interaction and communication was a reflection of the course design or else the lesson may have been based on a traditional model for tutorial sessions. This distinction should be clarified in future research. In either case, the lesson design had implications for how the participants enacted their role as learners. It appeared to favor an instructor-centered approach and privileged instructor-student interaction over student-student interaction.

Although the study did not intend to address the course instructors' or tutors' perspectives as participants in the distance learning ecologies, excerpts from the observations illustrate some of the challenges surrounding instructing in a dispersed learning environment. Aside from technical issues, one of the apparent challenges was gauging the students' reactions based entirely on audio feedback. The instructor is not able to access off-microphone commentaries, even though such commentary—whether complaints or on-topic insights—can be helpful for effective instructing. For example, the off-microphone commentaries during the *Introduction to School Administration* (Excerpt #2) teleconference indicated how successfully participants in Antigua were processing the course material, and how they were making connections with their

professional practice and experiences. This was less clear in comparison with their on-microphone contributions to the discussion.

One interpretation is that the mode of technology itself favors an instructor-centered lecture style of instruction, and facilitating an inclusive discussion between potentially several hundred participants is impractical. (This demonstrates that even in distance learning environments, class size is still significant.) Another interpretation is that student-centered learning can emerge organically through the on-topic discussions taking place in a physical classroom, as observed in Excerpt #2. (The participants, who were all teachers, elaborated on the lecturer's discussion, using their own experiences and anecdotes from their professional lives.) This style of learning helps participants synthesize the material and resembles a constructivist learning environment. This exchange is also an example of how the classroom community itself can become an educational resource in distance learner ecologies. The next part of the discussion looks at what the data suggested about resources available in learner ecologies.

Material Resources

In response to Survey Item #17, 73% of Antiguan participants and 63% of Dominican participants identified the availability of library resources as one of the most challenging factors.

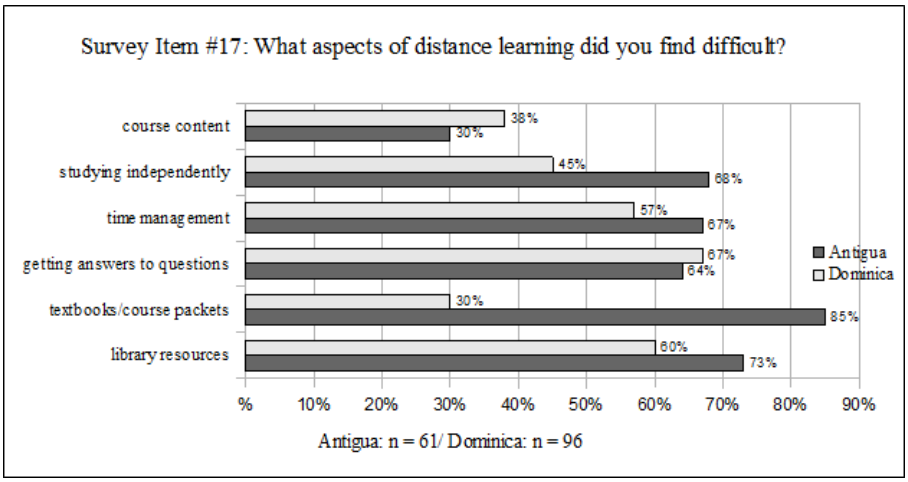

Figure 10. Survey Item #17: Antigua and Dominica

In interviews, participants and administrators elaborated on the dearth of library resources and other research material:

> We have basically no library, because the university library is not really functional. Most of the time, we really struggle to find stuff to write our papers. When books are sent from Jamaica, they don't get here in time. That puts us behind…. I'm still in the course and hoping things will get better before we get to the end of the course. I still have two years to go. It's challenging because of the technical difficulties, and lack of resources. (M.Sc. Student)

> *Interviewer: What's challenging about studying through a distance program?*
> Getting our reading things – our textbooks. We have a little problem with our library, because it doesn't have up-to-date material, so it's very difficult to research here. Because we have to get what information we can glean from [online]…. Most of the things on Internet are books they're trying to sell, and I don't think [instructors] put that into account when [grading assignments]. So information kills you to get! To do a good paper is kind of a bit difficult. And I don't think they take that into consideration when they're marking your paper. Because they say, "You forget that!" You get penalized. (M.B.A. student)

> *Interviewer: What's challenging about studying through a distance program?*
> Unfortunately, inadequate library. Internet is our biggest source. We had other community libraries that we had to source, plus friends. So that was our biggest challenge. A few of the courses provided websites. Some of the books had
> websites too. But when you go to the Internet, you don't even think about that. (M.Sc. student)

> The lack of information makes it a bit difficult. I have done Nursing, and the availability of the material, anything I wanted to research, it was there in the library. The Bachelor's wasn't bad because the library is quite proficient for that. But with the Master's in Counseling, that's where the problem is. Sometimes you might have difficulty understanding what is expected of you. And certain subjects with the Masters, I find that not too laid out: not clear, a little fuzzy.
> *Interviewer: The library resources might be good in one academic level, or subject, but not in others?*
> Right. Especially in Counseling. (M.Sc. student)

Textbooks and course packets are distributed through the Mona, Jamaica campus. The participants in Dominica (30%) appeared to have less difficulty receiving course material on time compared with the participants in Antigua (85%).

> We have a problem in getting our course workbooks. It's our second week and it is [only]

> one book that has arrived. And they set assignments to be completed within a certain amount of time. If you have an assignment in the first, second, week of March and now it's the eight of February and you still haven't attained the workbook, when are we going to get enough time to read, to research, to do a proper paper? I find that's the most difficult thing I have in distance learning. If you have the textbook at the beginning of the course, then you can start the reading so by the time [assignments are due], you already in your reading, but most of the time, by the time we get the textbook and the assignment, it's such a short time to answer your questions and to prepare. It really puts you at a disadvantage with research. (M.Sc. student, UWI Antigua)

Access to resources is a major issue for small islands and higher education institutions in economically developing countries because of the copyright costs involved in providing access to digital texts and journal subscriptions. There are also indirect costs incurred by participants accessing the materials online from home. Some participants said the reason the Internet was not a main resource in their coursework was because they were not finding relevant information online for their particular fields of study. A few responded that they were not comfortable with searching for academic resources online. The University does offer library research training to new students, acknowledging that it is imperative for participants to have the skills that will enable them to conduct independent research. Also, at the time of data collection, the UWI library system had started adding a limited number of databases online.

The matter of "resources" was also considered in terms of financial resources and the affordability of education, which the participants identified as a significant obstacle. Relative to cost of living, UWI is the most affordable option for Antiguan and Dominican distance learners: tuition is $3,000 XCD (approximately $1,111 USD) per year. There are also "hidden" costs of higher education to consider, such as purchasing supplementary material (particularly when library resources are limited), transportation costs, or child care. Thirty-five percent of the Antiguan respondents replied that receipt of a scholarship was a significant reason for choosing distance learning. The local Board of Education (BOE) awards scholarships to as many as 85%-

90% of Antiguan citizens studying locally. Furthermore, UWI Antigua is very heavily subsidized, and the Antiguan government supports students who study at the regional university. Half of the Antiguan respondents reported receiving scholarships, while 35% were self-financing their education. The respondents who chose "other" explained that their employers funded, or partially funded, their education as part of their professional development.

> First year, paid myself, and second and third year—because it was a three-year program—I was financed by the Board of Education…. [But] I would have been willing to foot [the bill]…. Hopefully I'll be in administration soon. (M.B.A. student, UWI Antigua)

> We had one member that dropped out, but it was for financial reasons. He could not get a sponsor. Because all of us got scholarships. But he said he didn't get a sponsor.
> *Interviewer: Had you not received a scholarship, would it have been possible to continue*?
> No, because it's a couple thousand U.S. dollars and that is totally out of most of us salary reach…. The program I'm doing has a full scholarship from BOE [Board of Education]. I probably would have gone ahead and pursued it without the scholarship, though it would have been difficult. (M.Ed. student, UWI Antigua)

The Antiguan Board of Education offers a number of scholarships to teachers, but when interviewed for this study, the Antigua and Barbuda Union of Teachers Treasurer, Franz Ladoo, pointed out that the number of awards will have to increase proportionately to the steadily increasing number of prospective teachers enrolling in local Education degree programs:

> They used to average three people in a year who could get their Bachelor's degree [funded]. Now it has to accommodate 30 people. If you encourage people to get their degree, there has to be room in the system to accommodate them.

In comparison, there are fewer funding opportunities in Dominica. For Dominican respondents, affordability is a key factor for choosing distance learning, particularly because limited funding and scholarships are available for higher education, and the majority of Dominican respondents were self-financing their education.

> [In Dominica, students receive] not so much scholarships, but small grants. Now and then we get letters from the government. Not everything, but small assistance awards. It's not

> my understanding of the word "scholarship." I'm happy they get assistance, but the student has a stake in it, and understands they must contribute to their education. People who work in the banks, et cetera—sometimes work places give assistance. (Dr. Francis Severin, Director, UWI Dominica)

> Because of cost, it was cheaper to start by distance and finish full-time on a physical campus. Studying is costly, particularly when you're out of your country…. I was thinking of taking a loan and going to [a Canadian college] or [a United States college]. The cost of doing a program at UWI was a small fraction of the cost of American tuition. If I go anywhere in this world, I won't get that tuition. The cost factor weighed in heavily [on my decision]. I also thought [UWI] was a good education. (M.B.A. graduate, UWI Dominica)

In response to the survey item #13, "If I hadn't received a scholarship, I would not have enrolled in my programme or course/s," a large number (89%) of UWI Dominica students responded "Not Applicable," illustrating the scarcity of scholarship opportunities in that country.

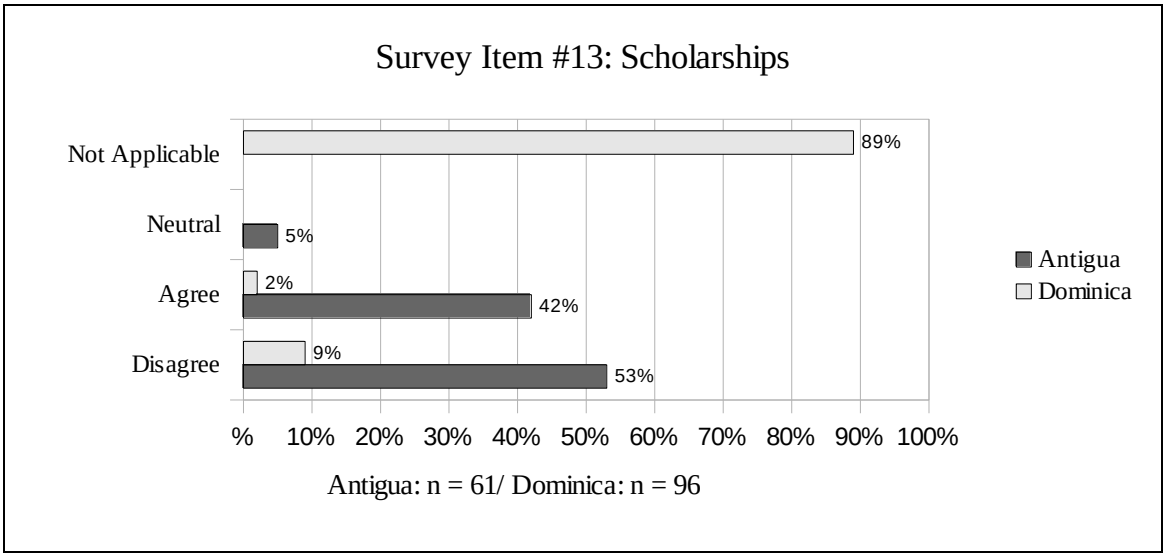

Figure 11. Survey Item #13 (Scholarships): Antigua and Dominica

> Very few [Dominican students] get full scholarships. There are five scholarships offered to the top five students to go to any university in the world. At UWIDEC Dominica, around 8-10% are getting scholarships. The problem is many don't know scholarships are available to them. There are some cases where people apply and don't get through. The government has an area priority list: For example, Education and Literacy [majors] have a better chance of scholarship as opposed to [Business] Management. More emphasis is

> placed on educating the teachers. Scholarships aren't need-based. People don't work for a lot of money in Dominica, very few get high salaries, and those who do [get high salaries] don't send their children to distance programs. They would do a campus program, or go abroad. Such people wouldn't apply for assistance. (Administrator, UWI Dominica)

The researcher inferred the socio-economic status of the participants based on their occupations and level of educational attainment, rather than self-ascribed status, or factors such as family reputation or social connections. The survey asked respondents about their educational backgrounds: of the 105 respondents (96 surveyed and 6 interviewed) from Dominica, 80 attended public primary school and 18 attended private primary school (7 did not respond). Forty-nine attended public secondary school and 37 attended private secondary school (19 did not answer the question). Among the Dominican respondents, 21 went from a public primary school to a private secondary school. Thirteen attended a prestigious private secondary school, Convent High School. Among the 70 Antiguan respondents, (61 surveyed and 9 interviewed) half (35) attended public primary school, and half attended private primary school. Fifty-six attended public secondary schools and 13 attended private secondary schools. Twelve of the respondents went from a public primary school to a private secondary school.

In order to advance to the tertiary program at UWI, the participants needed a solid primary and secondary school education, and good CXC examination results. Based on the surveys and interviews, more Antiguan respondents attended public secondary schools in comparison with Dominican respondents. Although this data set is small, it does reflect the stronger quality of public schools in Antigua, which is also a reflection of the economic differences between these two countries. In order to better understand the participants' socio-economic statuses, the study could expand on analyzing the connection between socio-economic status and schooling, for example, establishing why some participants changed from public

primary to private secondary schools.

Another consideration for understanding socio-economic status is the levels of educational attainment of the participants' families. *We Wish to Be Looked Upon* (Rubin & Zavalloni, 1969) is a study of secondary school students' aspirations in newly independent Trinidad. The book represents the views of today's Eastern Caribbean adults 40 years ago. (They are less than a generation older than the 32-35 year-old participants in this distance learning study.) Like the students in *We Wish to Be Looked Upon*, the distance learning participants were young adults when their countries officially became independent nations: Dominica in 1978, and Antigua and Barbuda in 1981. *We Wish to Be Looked Upon* raised important discussions concerning the connection between socio-economic status and social mobility. The parents' and guardians' education levels were an indicator of socio-economic status; Trinidadian students whose parents completed secondary school were usually upper- and middle-class (p.49). By today's standards, the percentage of the population completing at least primary education has steadily increased in most of the Eastern Caribbean, so it is no longer an indicator of upper and middle socio-economic class. In the case of UWI distance learning participants, parents and guardians having completed secondary school indicates that the family is at least working-class or middle-class.

Survey Item #3 asked about the level of education attained by the respondents' household members during their youth. (Item #3: "*Growing up, who lived in your household? To your knowledge, what is the highest level of education they have reached? Please add to the 'relationship' column as needed*"). Among participants, most Antiguan parents and guardians had completed up to secondary education: 43% of female parents/guardians and 38% of male parents/guardians. In comparison, fewer Dominican parents and guardians had completed

secondary education (10% of female parents/guardians and 13% of male parents/guardians). Most Dominican parents and guardians had completed up to primary education (85% of female parents/guardians and 68% of male parents/guardians). Antiguan parents and guardians had achieved higher levels of education in comparison to Dominican parents and guardians, which reflects the socio-economic differences between the two countries, both in the recent past as well as in the present. The financial resources available to students and institutions are another aspect of learner ecologies that allow an understanding of the participants' socio-economic background. The scarcity of financial resources reflects that higher education, particularly graduate studies, is unattainable for most of the Eastern Caribbean population. Scholarships to study abroad are usually awarded to recent secondary school graduates rather than older, returning students.

In both Antigua and Dominica, the participants responded that the educational attainment level of female parents/guardians was higher than that of males. As discussed, the majority of distance learning participants in the UWI program are women, and the study found a connection between economic resources and gender. Population census statistics indicate that Dominican and Antiguan women earn less than men, and single female heads of household average more financial dependents than male heads of household.[78] Census results suggest discrepancies in compensation when income is disaggregated by gender: the average wage among Caribbean women is 80-85% of the average wage of male workers. In Dominica, the only field where women earn more than men is in technical and associate professional jobs, where more women (54%) are employed than men. In these fields, 38% of women employees earn under $1,500

[78] In households where the head of household is supporting three or more people, the percentage of households supported by single women is 45% in Dominica and 48% in Antigua (Antigua and Barbuda Ministry of Finance, National Statistics Division, Census 2001; Dominica Ministry of Finance, Statistics Division, Population and Housing Census 2001).

XCD (approximately $555 USD) per month.[79] However, at the highest tier, most male workers (58%) earn over $4,000 XCD (approximately $1,481 USD) per month. In service and retail jobs as well, the majority of low-paid workers are female. Although women attain higher levels of education, their earnings are lower than that of men.

> It's not just in education alone. You find that in Antigua, the males tend be laid back. The females seem to be the ones who want this higher education. Funny enough, in the course I'm doing, you have a fair number of males. This is a discrimination that we sometimes find, where men are promoted above females. They push the males [ahead] a lot. Both of us may have the same qualifications. They may not be the better performers, but because there are so few males, it's a kind of discrimination. In the Ministry of Education, we have four zone officers, and three are female. In the schools, ratio-wise, I think you'll find more male principals than females. (M.Ed. graduate)

Although identifying the reasons behind gender disparities in education and employment was beyond the scope of this research, this study raises the subject of economic resources in relation to gender because of its importance in understanding learner ecologies. Eastern Caribbean women earn less and believe they need more academic credentials in order to earn more. It is understandable that a comparatively affordable program such as UWI's distance program would attract more women. Further research is necessary to understand whether the income disparity has any bearing on the overall predominance of women in higher education in general.

Conceptualizations about Learning and the Role of Learners

The respondents reported that "getting answers to questions" and "studying independently" were also significant challenges as distance learners. These matters related to how the participants perceived "learning," and the role of the learner. The Antigua DEC Director,

[79] Dominican women make up 36% of the lowest earners in technical and associate professional jobs. In the service and retail sector, 61% of female workers and 11% of male workers earn less than $1,500 XCD per month. At the highest tier, the percentage of men and women earning over $4,000 XCD per month is approximately equal (2%) (Dominica Ministry of Finance, Statistics Division, 2001). It is possible that the disparity could be explained by male workers having more seniority or more professional experience, but this was not addressed in the census data.

Dr. Ermina Osoba, applied the phrase "culture of learning" in reference to an ideal environment where distance participants are self-directed and take ownership of their learning process. The idea of a "culture of learning" is tantamount to constructivism and student-centered learning, as defined in the field of instructional technology. As discussed, the current discourse in instructional technology focuses on the way technology can be used to cultivate qualities of the constructivist model. Because of the autonomous nature of distance learning, the constructivist learning environment seems ideal. The concept of "a culture of learning" also aligns with the recent discourse on critical thinking in education. This study does not seek to prove or advocate for constructivism as an educational theory. Rather, it is demonstrating that the current discourse plays a part in explaining the direction in which the UWI plans to develop its distance learning program. The University is exploring the strengths and challenges of how the blended program supports constructivism. The current discourse, as well as the historical context of educational development, are both part of the learner ecologies that this study attempted to analyze.

To further understand the influences that may have shaped how the participants conceptualized their role, it is necessary to consider the socio-historical background. The Caribbean education system is grounded in a historical tradition of standardized testing, and instruction in primary and lower-secondary grades is heavily oriented toward exam preparation. As described by the respondents, teacher training in Antigua and Dominica also takes an instructor-centered approach, which shapes the model and educational philosophy that teachers bring to their classrooms.

> You're told to think, not taught to think. My experience in teacher training killed my enthusiasm about going forward. Teacher training means you're told to go home and read a book, and when you come back they read the book back to you. You couldn't argue points. I went to O Levels 6th form. I was able to observe the teacher training people. Teacher training set a sour taste in my mouth…. We no longer live in an environment where we expect children to just take in everything the teacher tells them. Each student is

> an individual. One thing I learned is engineering creativity [in the classroom]. I'm doing teacher training of technical vocational teachers who should have some formal background in business. So these skills are important. And I see myself using that same strategy in my classroom. Now, you have to think about cooperative learning, and student group work. Given feedback, they should have to come up with solutions to problems. These are things I was able to transfer to my classroom. (M.Ed. graduate)
>
> [Online education is] here to stay. Blended learning is going to be more online, less face-to-face contact, except for administrative purposes. Therefore, students will have to be more responsible for their learning—more self-directed learning. (Dr. Ermina Osoba, Director, UWI Antigua)

Self-directed learning involves peer collaboration. According to the survey results, when students have questions about course content, they often rely on each other.

A dearth of material resources may encourage students to pool together resources and ideas, as well as network in order to access resources and information from experts in their field.

According to the survey results, the respondents "usually" or "sometimes" asked a classmate or someone in their field, when they had questions concerning course content.

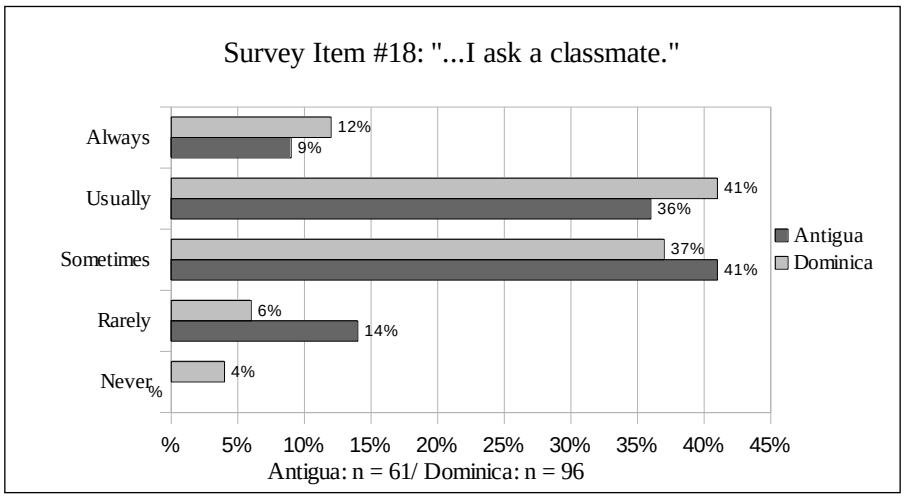

Figure 12. Survey Item #18 (Classmate): Antigua and Dominica

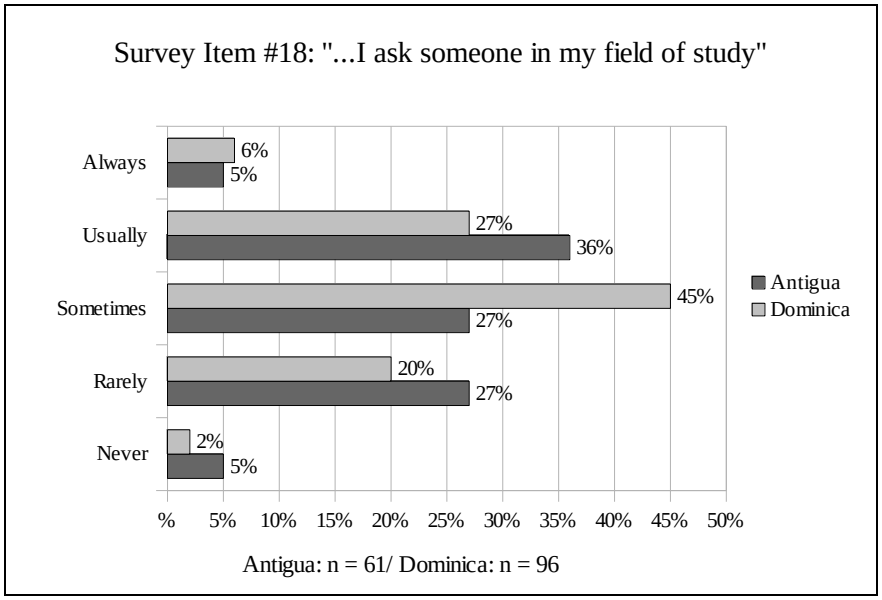

Figure 13. Survey Item #18 (Person in Field): Antigua and Dominica

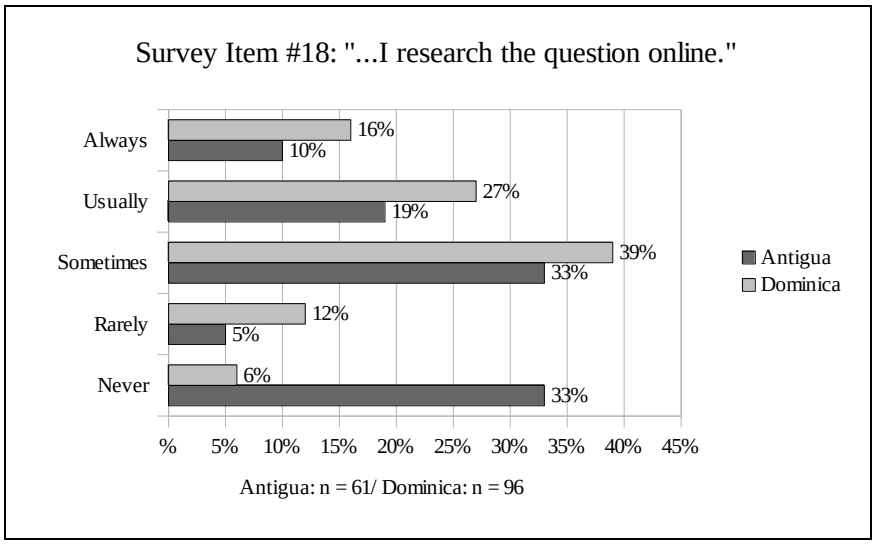

Figure 14. Survey Item #18 (Online): Antigua and Dominica

The Dominican respondents utilized information resources more often than respondents from Antigua: the Dominican respondents usually (27%) or sometimes (39%) conducted research online, while Antiguan respondents sometimes (33%) or never (33%) conducted online research. Whether this reflects limited Internet access or their degree of online research skills is an important point to address in future research.

Equal numbers of respondents from each country were studying Education or Business. The majority (67%) of the Antiguan respondents reported that they never did library research, while 34% of the Dominican respondents said they sometimes or rarely (26%) did library research. Low utilization of libraries was tied to the availability and quality of resources in these collections.

> If somebody might have done counseling before…[for example,] there's a girl that works at the Ministry of Sports and Youths, so you have to beg one of her friends to beg if she has something, in order to get information to put into your research paper, because resources are not really available. (M.Ed. student)

As previously described, the public library collections in St. John's and Roseau are limited, as are the libraries at the DECs. Many respondents reported that they were unable to find relevant information online. The data suggest that the participants turned to peers in order to bridge gaps in the availability of resources. The percentage of the participants who posed questions to instructors was low, suggesting that they may not regard the instructor as accessible. However, the study did not look at communication between participants and instructors outside of the teleconference and tutorial sessions, so instructor accessibility is a factor that would have to be considered in future research.

Antiguan respondents (35%) sometimes asked the instructor/lecturer first when questions arose on course content, while Dominican students rarely (35%) asked the instructor.

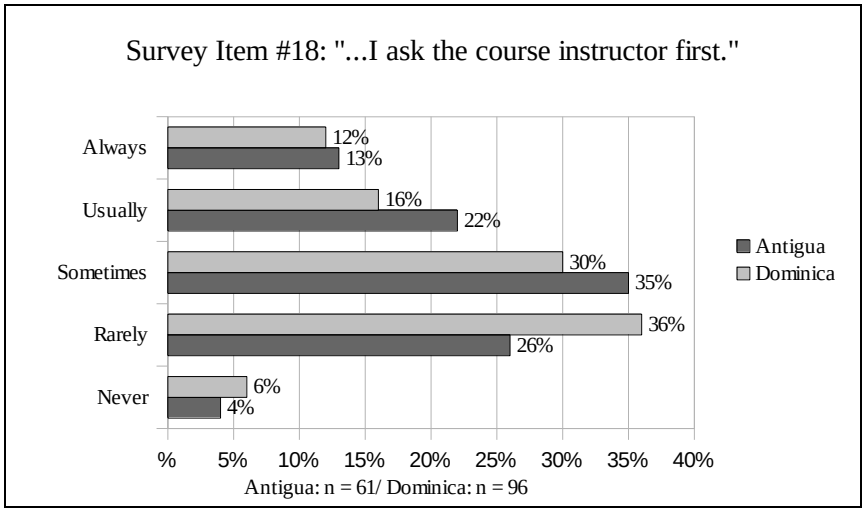

Figure 15. Survey Item #18 (Instructor): Antigua and Dominica

In comparison, the percentage of participants who responded that they usually asked classmates or someone in their field of study when they had questions about course content is higher than the percentage of participants who usually consulted with the instructor: 41% of Dominican participants and 36% of Antiguan participants usually conferred with classmates. Twenty-seven percent of Dominican participants and 36% of Antiguan participants usually consulted with an expert in their field. In contrast, 16% of Dominican participants, and 22% of Antiguan participants, usually consulted with their course instructors.[80] These results suggest that the respondents may often refer to classmates and professionals in their field as human resources, to supplement or compensate for the scarcity of material resources. One explanation may be that peers and local experts are physically closer than teleconference instructors.

[80] Asking respondents to quantify "always," "usually," and "sometimes" would have yielded a more accurate understanding of frequency. This is further discussed in the Recommendations for Future Research section of Chapter V (Discussion).

Summary

Prior to field work, the researcher collected statistical information from the University and the federal governments of the countries in the study. Conversations with University administrators clarified information about the current program and future plans. The researcher piloted interviews at the sites, and although examining how the distance learning program affected migration was the initial focus of the project, the pilot interviews served to identify factors most important to participants and to refine the interview questions and survey. These are defined as key factors in the learners' environments, or "learner ecologies," which became the main focus of the discussion.

The project weaved together interview, survey, and observation data. During the data collection, it was not clear to the researcher how observations of the teleconference and tutorial sessions would fit in the project, or whether these qualitative data were relevant. The researcher collected questionnaires from 49% of the student population (61 out of 125) in Antigua and 44% (96 out of 216) in Dominica. Although the quantitative data represented less than half of the distance learner population, the researcher attempted to identify patterns and draw some generalizations between the two countries that could also be generalizable to the other Open Campus countries. It is possible that a larger data set would have revealed different results: since most of the data were collected on site, the study omitted information from participants who came to the sites less often or not at all. These off-campus participants had inherently different learner ecologies than participants on site, and could have reported a different experience as distance learners.

Excerpts from the 15 interviews aligned with the quantitative survey data and provided a narrative for the distance learning experience. Interviewees did not complete surveys, although

this would have provided a stronger argument that the qualitative interview data, in fact, supported the quantitative survey data. Surveys from interviewees also could have been used as a guide for prompting interviewees to elaborate on their responses.

In the process of analyzing the data, it became clear that migration was not a significant issue for this demographic. Migration, in relation to education, was far more likely among a higher socio-economic demographic. Migration was also more likely among men and women in jobs such as construction, small-scale trade (higglering and huckstering), seasonal farm workers, or entrepreneurial and contractual work. The participants in the program were predominantly employed in education, business administration, medical administration, and clerical positions. As a result, the focus of the research shifted from migration to learner ecologies. During the data analysis, the interview and survey data were juxtaposed with observations of the teleconference and tutorial sessions in order to understand the nature of classroom community and participant interaction. The observations were also analyzed in order to understand what the participants believed was their role as learners in a distance learning program.

Survey results were similar in both countries, with the majority of respondents reporting that they chose distance learning because it fit in with professional and personal obligations and was affordable. While the socio-economic status of the participants seemed similar across the two countries, the data highlighted well-known economic disparities between the two countries; because Antigua is a larger, comparatively more prosperous, and more industrialized nation, more funding opportunities were available to the participants in comparison to their Dominican counterparts.

A subtle but interesting outcome is the way the participants defined the “convenience” of distance learning. Their responses suggested that “convenience” was not defined in terms of

independent study at one's own pace, or at one's leisure; instead, convenience, for them, meant distance learning could fit alongside other obligations. The research findings also illustrate how different conceptualizations of factors in the learner ecologies—time, space, and resources—are experienced. The data described connections between "time" as defined by the life cycle (with particular implications for gender), and how a respondent's place in the life cycle impacts the learning experience. The findings also described the contrast between the organization of "time" in the work place, and the organization of "time" in the educational institution. [81]

The data addressed the concept of "space" in terms of the physical classroom, or physical campus, and modes of instructional content delivery. Even though the participants stressed the importance of interacting with classmates overseas, it was evident that during observations of the teleconference sessions, students rarely interacted with the instructors and their remote classmates. As described in the excerpts, the teleconference did not bridge time and space. Yet, Excerpt #2 provided an example of participants engaged in peer interaction and creating a resourceful classroom community of sorts. In terms of "resources," the respondents reported on the survey that they most often referred to classmates for support and information. They highlighted the importance and scarcity of academic material at the time the study was conducted, as well as the limitations of using the Internet as an academic research tool. These discussions provided another view of learner ecologies.

The next chapter further examines the data by applying the concept of learner ecologies as a framework. It discusses how the data expressed various manifestations of key factors in learner ecologies, and the implications of applying ethnography as a methodology in distance learning research.

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[81] For a discussion of various definitions and conceptualizations of time, space, and resources, please see Chapter II (Literature Review).

Chapter V

DISCUSSION

Applying the concept of learner ecologies allowed the researcher to consider the distance learning experience more holistically. This approach was helpful in formulating a sense of the student population, as well as understanding why the program might attract a particular demographic at this time. Learner ecologies encompass the historical context of educational development, the institutional mission and its philosophy, as well as social and economic factors. Rather than looking at the subject from a single paradigmatic lens, learner ecologies proved to be a helpful conceptual tool for this descriptive study.

Learner ecologies examined in this study are the holistic learning environments of participants studying in a blended learning program,[82] and this research project attempted to understand how various facets of the participants' learner ecologies shaped their distance learning experience. The term "ecologies" implies a symbiotic relationship, which the participants identified as important in their learning process. However, during the observations, the participants did not capitalize on the opportunity to interact with classmates in the physical classroom. In one example, although the participants were not always on task, the teleconference served as the foundation for a (semi-structured) peer discussion. While this study only included a small number of tutorial sessions, those observed suggested that discussion-oriented lessons facilitated peer interaction and collaborative learning to a greater extent than lecture-oriented

[82] The UWIs blended distance learning program entails independent study using print media, while also using teleconferencing and face-to-face classroom tutorial sessions.

lessons.

One of the challenges in distance learning research is identifying the unit of study: Is it the physical classroom where the students are meeting for the teleconference, or does the unit of study encompass all of the dispersed Open Campus classrooms? In the case of face-to-face tutorial sessions, is the unit of study the physical classroom or the distance learning program at large? One solution is regarding "learner ecologies" as the unit of study, because it allows room for multiple definitions of "space" (and "time"). Using learner ecologies as the framework for analyzing the data in this study raised some interesting considerations regarding time, space, interaction, and conceptualizations of learning as factors.

"Time" in Learner Ecologies

The idea of "time" in terms of life cycle was illustrated in the data, as most of participants were 32-35 years old, and had established careers. Time in the life cycle influenced their distance learning experience because most had multiple responsibilities in addition to fulfilling the requirements of the program. Age and experience certainly impacted the skill set they were bringing to the program, and influenced how they perceived the learning experience. For the participants in the study, the purpose of the distance program was primarily professional development, as opposed to personal development. The participants perceive the purpose of the program as pragmatic and applicable in the near future.

In terms of time in the life cycle, the data raised an important point concerning generational differences and technology. The participants in this program have achieved a degree of success academically and professionally. They referred to distance learning as "returning to school," yet the blended program was different from their previous formal learning experiences. Administrators discussed the participants' preference for a physical classroom environment and

instructor-centered lessons because that was familiar and within the scope of their educational experiences. As described by Dr. Osoba, Resident Tutor/Director of UWI Antigua DEC, acclimating participants to teleconferencing was initially challenging when more teleconferencing was phased in, replacing in-person tutorials. Likewise, the participants in the study expressed reservations about the imminent transition to online course delivery.

The study also looked at "time" as a social construct in learner ecologies; the respondents discussed how they balanced their studies alongside time in the workplace and personal time. They generally separated their study time from time in the workplace. For teachers, one of the reasons may be that their work day usually did not allow flexibility or substantial break time to address tasks unrelated to their work. In terms of how the teleconference technology shaped "time," the participants commented about arriving at teleconference sessions on schedule, and working around job-related meetings and domestic obligations, in order to attend teleconference or tutorial sessions. Most participants did not (or could not) take advantage of the fact that the sessions were also posted online. For some participants, attending in person seemed to lend an authentic quality to the learning experience.

"*Families and Communities as Educators"* (Leichter, 1978) highlighted the significance of the organization of time in educational settings—for example, time allotted to teach a curriculum unit, timed tests, and so on. "*Families and Communities as Educators"* also points out that consideration for flow and interruption of activities should be part of any research on educational settings. Interruptions were a significant factor in the observations of the teleconference classroom environments. The qualitative data illustrated how interruptions may have impacted the ability to create a more cohesive classroom community across dispersed physical locations.

Another way to examine the data by applying conceptual definitions of "time" was through considering the asynchronous and synchronous nature of distance learning environments. The Literature Review (Chapter II) included a discussion of the way synchronous, and asynchronous learning environments influence student participation. The synchronous nature of the teleconference in this study resembled that of the traditional classroom environment in the sense that not everyone can participate in commenting or critiquing ideas. When the participants did comment, it was shared with potentially up to 600 classmates. Unlike the environment students described in the studies of Web-based discussion boards, although there was a great degree of anonymity in the teleconference environment, teleconference participants did not demonstrate a higher comfort level with sharing ideas and making critiques. During the observations, participation in the discussion across Open Campus sites was limited. Although the time in the academic year when the observations took place was directly preceding mid-semester examinations, there was nothing to suggest that the teleconference sessions were usually more interactive. A larger number of observations would better substantiate this conclusion. It also appeared that group dynamics in the physical classroom during teleconference sessions had a significant influence on participation, and determined whether or not students developed a sense of classroom community among face-to-face participants. Some groups appeared to develop more of a rapport and supportive environment than other groups.

The purpose of the discussion and comparison of synchronous and asynchronous learning environments in the Literature Review was to illustrate one way to consider the role of time in learner ecologies. In this study, the teleconference and in-person tutorials were synchronous learning environments where the technology did not alter the nature of the distance learning classroom as differentiated from a traditional, physical classroom setting. In fact, the blended

program challenges our perception of the meaning of "distance" learning. It bridges participants across space in terms of access to the program, but does not bridge participants in terms of interaction and synchronous or "real-time" engagement. The program is imminently changing from a synchronous (teleconference) to an asynchronous (online) course delivery. The participants' perception of this change was that it would further remove them from the instructor and the core classroom of the physical campus. The hesitance (or resistance) among the participants may have stemmed from uncertainty about how learners bridge time and space in an online environment.

The participants expressed uncertainty about whether important factors in learner ecologies such as communication with instructors, peer support, and access to resources will be any less challenging.[83] Because the participants expressed that the face-to-face feature of the blended program is important to them, it is possible that, going forward, the DECs could still provide a space for small, informal study groups to meet in person, even though participants are studying online. Building in various forms of support, such as study groups and technical support, is effective for maintaining low attrition rates in distance learning programs.

Time and "Convenience"

The number of distance learning programs available to prospective students is rapidly growing, as many higher education institutions are either adding or expanding their distance course and program offerings, and more "virtual universities" are appearing online, some of which operate solely via the Internet. "Convenience" is a catchphrase used to attract prospective distance learners to many of these programs and courses, emphasizing the ability to do classwork

[83] During the time of the study, the participants did not have frequent access to the Internet, but the study could have better clarified the extent to which they were accustomed to online experiences such as interactive social networking sites. As more adults use these kinds of sites informally, they will also become more open to the idea of online learning.

anytime from anywhere. In the learner ecologies of UWI distance learners in the Open Campus program, "convenience" carries this connotation as well as a slightly different meaning. Several respondents in this study reported that, at some point, they considered studying at one of the UWI campus countries. Instead, they found that the local Open Campus program offering the same degree was more affordable and more convenient because it did not require a major life change—namely, emigrating to one of the campus countries (Jamaica, Barbados, or Trinidad). The UWI distance learning program is not necessarily convenient in the sense of offering "anytime, anywhere" access, because the blended learning program[84] still involved traveling to the local Distance Education Centres. Some of the participants did not have access to a personal computer, so "anytime, anywhere" was not a feature they could fully take advantage of at the time of the study. The UWI recently made arrangements through the Royal Bank of Trinidad and Tobago offering students specially designed loans to purchase personal computers. Students may be resourceful in other ways, such as using computers at work, sharing computers, or using the computer labs at the Distance Education Centre. In any case, the research findings suggest that "convenient" is relative to the conditions of particular learner ecologies.

Time and Life Cycle

The research findings also demonstrate the significance of "time" in terms of life cycle. As the majority of the distance learning participants are adult learners, managing the obligations that occur at this point in their lives was a main concern to them, and shaped their learner ecologies. According to survey and interview data as well as the University's enrollment data, most distance learning participants were mid-career professionals and came to the program with substantial experience. The study also demonstrates a connection between time, in terms of life

[84] Please refer to the Definition of Terms section of Chapter I (Introduction).

cycle, and gender. The majority of distance learners in the program were older adults (on average 32-35 years old), predominantly women, employed full-time, and several were single heads of household. Considering these responsibilities, it is easily understandable why the economic accessibility and "convenience" of the UWI distance learning program worked well for this demographic.

In general, in the Eastern Caribbean, the learning environment at the secondary and tertiary levels has become female-dominated.[85] One male student in the distance learning program, who had attended same-sex primary and secondary schools, described how exposure to female classmates in the university altered some of his assumptions:

> I had a different appreciation for women. I respected them more. Normally, in class, I was the only male for most of the time. I was being "beaten" by females every year, and they were younger than me! So I started to look at them as just other students. They were not "just female" anymore; I upgraded them…. I must say, that too, matured me a little more. (B.Sc. graduate))

Jamaican education researcher and University of the West Indies professor Hyacinth Evans (2001) demonstrated how discursive practices in primary and secondary classrooms can discourage children from economically disadvantaged backgrounds, particularly boys (p. 138). Based on observations in Jamaican schools, her research suggests that boys from lower-income families leave school in response to unsupportive environments. The Distance Education Centre directors interviewed for this study attributed the gender disparity in post-secondary education not to low attrition rates among male students but to low enrollment; because fewer males are

[85] In the United States as well, more women are distance learners, and over half of the university students in the U.S. are female. According to the U.S. Department of Education, National Center for Education Statistics, women accounted for 57% of students enrolled in degree-granting institutions in 2010. Female enrollment in full-time post-baccalaureate programs rose 63% between 1999 and 2009, while male full-time enrollment rose 36% during that period (USDOE NCES, 2011-2015, *Digest of Education Statistics, 2010*, Chapter 3). Female enrollment in post-baccalaureate distance learning programs was 64.8% (USDE NCES, 2011, *Number and percentage of post baccalaureate students in postsecondary institutions taking distance education courses, by selected characteristics: 2007-08*, Table A-43-2). A similar trend of higher percentages of female tertiary and secondary graduates is also evident in the United Kingdom, and has been associated with social issues concerning ethnicity and economic class (Arnot et al., 1998; Gilborn & Mirza, 2000).

finishing secondary education, a smaller pool of young men are taking and passing the requisite common entrance exam to enter college or university. Although the focus of this research was not to uncover the reasons behind the well-known gender disparity in Eastern Caribbean education, it further illustrates the ways in which the study of learner ecologies creates an opportunity to address the social and economic issues that both directly and indirectly impact Eastern Caribbean adult learners.

"Space" in Learner Ecologies

In the UWI distance learning program, "distance" refers to bridging the geographic space between countries in the regional university network. This study explored different ways to discuss "space" in distance learning research, and aimed to illustrate how "space" can have several different meanings. The data also addressed learner ecologies in relation to "space" and illustrated how different conceptualizations of space (e.g., dispersed sites) shaped the learning process, particularly peer interaction. The University's blended learning[86] program creates opportunities for participants to interact, and respondents expressed that this was important to them in their learning process. During teleconference observations, however, the participants in the physical classroom exercised minimal interaction with remote classmates and instructors. Interruptions in the teleconference transmission further restricted classroom community-building across dispersed sites.

The participants discussed positive experiences with collaborative projects and study groups. As most participants lived in proximity to the capital cities in which the DECs were located, meeting in person was not an obstacle; some mentioned meeting with classmates even when it was not directly required by the course. Most respondents expressed a preference for

[86] Please refer to the Definition of Terms Section of Chapter I (Introduction).

some form of collaborative learning. Charles Wedemeyer (1981), an innovator in distance and independent learning in the United States, affirmed that autodidactic learning can be effective, but John Seely Brown (2002), co-founder of the nonprofit Institute for Research on Learning,[87] maintains that learning occurs collaboratively through communication.

One of the challenges involved in developing distance courses is creating environments that support collaborative learning. This is a criterion with in-person instruction as well, but physical distance creates an additional, inherent obstacle. Many of the teleconference classes observed in this study were lecture-based, but one example encouraged student discussion. The data supported the idea that it is not the technology that creates student-centered learning, but the lesson design and the inclusion of collaborative learning opportunities. One consideration is that the effectiveness of collaborative learning also depends upon individual learning style, and distance learning may inherently privilege particular styles of learning. The idea of regarding learning style as a form of cultural capital was raised in the Literature Review (Chapter II). The next section will expand upon this idea by analyzing the data in relation to the concept of "space" in terms of social distance.

Space and "Social Distance"

Bourdieu's (1977) concept of "cultural capital" explains that disparities in the academic success of different socio-economic groups can be attributed to social advantages. This study defined socio-economic status based on participants' occupations and level of education attained. It also considered the level of education attained by parents and guardians[88] and type of school

[87] Created through a Xerox Foundation grant in 1986, the organization researches learning in corporate, educational, and informal environments. John Seely Brown was Chief Scientist of Xerox Corporation and director of the Palo Alto Research Center, Inc., which specializes in research and development of technology and computer hardware.

[88] Please see Appendix A, Survey Item #3, Interview Item #3.

attended.[89] Many of the participants in the study attended private primary and secondary schools. Today, they are predominantly professionals or in skilled professions. The fact that they were successful in the formal education system and its rigorous examination system is also a reflection of cultural capital. That they are comfortable with academic language is also an example of cultural capital. The participants in the distance program were not representative of the poorest among the Antiguan and Dominican population, but one of the objectives of distance learning in economically developing countries is to bridge the social distance created by poverty.

Miller and Slater's (2000) research in Trinidad offered examples of how the Internet is capable of helping overcome social divisions, and asserted that the Internet offers the capacity to address inequalities in access to education. They noted that concurrently, the Internet is also capable of reproducing and exacerbating these very same social and economic divisions (pp.45 - 46). While opening new opportunities, computer technology raises "new and escalating" hurdles. They summarized these as disparities in social capital (e.g., Internet users are able to establish business connections more readily than non-users), academic capital (e.g., programming requires the ability to stay apace with a rapidly changing knowledge-base and access to the newest software), and economic capital (e.g., access to financial resources is necessary in order to capitalize on Internet-based, entrepreneurial opportunities) (p.49).

The degree of access to material and economic resources in learner ecologies reveals the significance of cultural capital and consequent social distance in the absence of sufficient cultural capital. The study of learner ecologies emphasizes that, in terms of social distance, the challenges and solutions surrounding equity in education among economically developing countries greatly vary. For example, Assié-Lumumba's (2004) survey of distance learning in Africa and Asia raises the point that some countries have "designed and implemented" programs to increase

[89] Please see Appendix A, Survey Item #4, Interview Item #4 and #5.

enrollment among “marginalized” populations (p. 2). In that particular context, the “marginalized” populations are girls and women. In the Eastern Caribbean, distance learning has extended access to women from lower incomes, to working women, and to female single heads of household, but has not impacted the diminishing number of men completing tertiary education. The gender issue highlights the fact that the needs and challenges of distance learning depend on the country and vary between countries and regions.

In this particular study, the concept of social distance and socio-economic class emerged as well. A professional, middle-income demographic will access the distance learning opportunity, while students from higher income levels will study abroad. This reflects lingering attitudes in the Eastern Caribbean about the prestige of studying overseas in Europe and North America when possible, and studying locally as a second choice (Rubin & Zavalloni, 1969, pp. 73-75). Similarly, a status difference between brick-and-mortar versus online learning will likely persist (at least in the near future) regardless of the quality of online learning available.

Access to the UWI distance learning program is challenging for the lowest economic sectors for several reasons: meeting the admission requirements is an obstacle for prospective students who do not receive requisite preparation in primary and secondary schools. As described in Chapter I, much of the poverty in Antigua and Dominica is concentrated in rural areas. During the time of the study, the participants lived close to the DECs in the capital cities, and rural dwellers were disadvantaged. The quality of telecommunications in rural areas, as well as costs related to Internet access, will determine whether rural dwellers may participate in the program online in the near future. The scarcity of scholarships and the hidden costs of education are also obstacles to participation for prospective lower-income students. However, today’s distance learning program has expanded access across social distance in comparison to the limited

accessibility of higher education in the past.

Migration and Higher Education

Migration is a key issue in Caribbean studies and was the initial focus of this study. According to World Bank (2011) statistics, the emigration rate for tertiary-educated Antiguans and Dominicans is 66% and 64%, respectively. Some of the other Open Campus countries are identified as having the highest emigration rates globally: Grenada and Jamaica is 85%, St. Kitts and Nevis is 78%, St. Lucia is 71%, and Belize is 65%. However, the World Bank report does not seem to take into account the possibility that these may be temporary migrations or cyclical migrations, which are common patterns for the Eastern Caribbean region.

For participants in the UWI distance learning program, migration is not a significant or viable option. Administrators commented that they aspire to see younger students enroll directly upon graduation from secondary school, but acknowledge the reality that younger students will first look toward ways to study overseas. It may be challenging to undo the perception of studying overseas as superior, because the idea is deeply embedded in the social histories of Caribbean Commonwealth countries. As discussed in Chapter I (Introduction),[90] the Asquith colleges created in colonial territories during the 1940s and 1950s, and The University College of the West Indies, were administered through London and emulated British university education.[91] In the late 1950s and 1960s, parents resisted the idea of separating from the British External Examination system because they believed the association brought a sense of status and legitimacy. This disposition was also illustrated in Rubin and Zavalloni's (1969) study of Trinidadian students' aspirations: although statistically unlikely or unrealistic, the majority of the

[90] Please see the Context of the Study section of Chapter I (Introduction).

[91] Also please refer to the discussion in Chapter II (Literature Review), Conceptualizations about Learning and the Role of Learners.

students surveyed aspired to university education, but very few expressed interest in the University College of the West Indies (which later became the University of the West Indies). Their primary choices were study abroad in Canada, the United States, and England (pp. 73-74). Today, students from the U.S. and Canada are studying medicine in the Caribbean and Latin America, including Ross Medical University in Dominica, because the quality of these medical schools seems to be equivalent, but less expensive, than medical schools in their home countries. This trend begs the question of whether the Eastern Caribbean bias toward studying in North America and the U.K. has any bearing in terms of the quality of tertiary education available locally. Similarly, a preference for traditional university programs ("brick-and-mortar" programs) over distance learning programs also persists in many countries, including within the Eastern Caribbean and North America. As these programs become more ubiquitous, and the number of accredited programs from which to choose continues to grow, more students may consider quality distance learning programs among their first choice of study.

The Concept of "Space" and Globalization

As discussed earlier, the notion of geographic "space" can be a social construct, such as the concept of "global communities" or "globalization." Manuel Castells (1999), the Spanish sociologist well known for his work on information societies, technology, and communication, considers the study of space in terms of "flows": the flow of populations by way of various patterns of migration, the flow of information and ideas, and the flow of consumer goods and money in a global economy. He elaborates that economic flows can occur through formal sectors as well as informal sectors such as huckstering and remittances (which are important features of the Eastern Caribbean economy). These constructs have implications for the social, economic, and education policies of every country. Education systems throughout the world are concerned

with the inadequate integration of instructional technology, and the ability of their educational institutions to meet the workforce demands of a global economy in a technological age. The Caribbean region is no exception, and in response, the University of the West Indies and the Caribbean Examination Council (CXC) are placing greater emphasis on "critical thinking." Didacus Jules, Registrar and Director of the CXC, expressed these goals when he commented in an editorial on the challenge of balancing regional identity with the need for globalized education:

> The essence of the internationalisation process is that it leaves little room for small states in particular to fashion an educational paradigm that is significantly divergent from the dominant global one. The rapid spread of international schools which now cater for primary level education predicated on OECD [Organisation for Economic Co-operation and Development][92] models are testimony to this reality. Increasingly notions of national curricula are yielding way to "foreign" or international curricula that literally prepares a student even from the primary stage "for export" (packaged as seamless entry) into tertiary education institutions located in OECD centres. This is in direct contradiction to the effort by many nation states to utilise curriculum at primary and secondary levels to help shape nationalist identification and build citizenship. (January 6, 2011)

Around the time of the formation of the West Indian Federation, there was a shift in the education philosophy of the region toward perceiving schools and universities as vehicles for civic development congruent with a new "regional identity" and nascent democratization. The issue of "peripheral" nations defining educational philosophy within the framework of contemporary globalization is particularly sensitive in the context of colonial legacy, yet these nations are compelled, at the same time, to address the need for constituents to be educationally prepared to meet contemporary demands.

Globalization involves expanded communication (i.e., the exchange of media and ideas). Media has played a significant role not only in disseminating information globally, but in

[92] OECD is an international organization that supports policies promoting economic growth. The 34 member countries are among the world's wealthiest economies, and it does not include any Eastern Caribbean countries at this time. In 1961, OECD replaced the Organisation for European Economic Co-operation (OEEC), which was created following World War II.

connecting diasporic communities. Even more so than print media (because literacy can be an obstacle), radio continues to be a staple for news consumption in the Eastern Caribbean, and diasporic communities voraciously consume Caribbean news programs. Contemporary communication is a by-product of "hyper-globalization," where the speed and breadth of communication and media access have increased exponentially within a short period of time. Satellite television and Internet access are available for a percentage of the Eastern Caribbean population, but a technology gap still exists due to economic disparities. Approximately 12.6% of Dominican households have at least one computer and 8.5% of Dominican households have Internet connection, while 27% of homes in Antigua and Barbuda have personal computers.[93] As the costs of manufacturing very basic technology continues to decrease, the market opens for consumption among less affluent sectors of the population. Meanwhile, these exchanges are re-shaping sensibilities and ideas.

In Miller and Slater's (2000) study, Trinidadian Internet users encountered this globalizing technology as Trinidadians—people from a specific geographical space. Rather than the Internet re-defining their culture and identity, the Trinidadians shaped the Internet to fit their cultural identity. The authors noted that although some may have encountered the Internet with various personal identities (e.g., student, blogger, advertiser, etc.), it was never encountered as a force that disengaged users from their own culture and values (p. 7). They described Trinidad and "Trini-ness" as "reconstituted" in the virtual realm (p. 103). Miller and Slater's assertion that the Internet supports "expansive realization" (a projecting of local identity onto the global arena) also seems to anachronize the longstanding idea of center-periphery relationships between countries and cultures. Although the Internet is regarded as a vehicle driving "globalization,"

[93] Source: Dominica Ministry of Finance, Statistics Division, 2001; International Telecommunication Union, 2009.

"globalization" does not necessarily mean that users in "peripheral" (or "semi-peripheral") nations shed their cultural and social norms, and adopt or conform to the "center" or "metropole" nations. A popular argument is that the Internet is making users more insular and parochial by drawing together groups of people with similar concerns, shared beliefs, and similar backgrounds, who frequent the same websites to the exclusion of others. But one may also argue that "globalization" means the simultaneous expansion and concentration of dispersed populations.

Resources and Classroom Community

This study addressed the scarcity of academic resources in learner ecologies. It also discussed the way technology has recently changed the publishing industry in economically developing parts of the world as well as the nature of libraries. While access still poses a problem, these changes have the potential to obscure the notion of "center" and "periphery." For example, recent technology has facilitated the expansion of university publishing to institutions in economically developing parts of the world. This advancement allows more institutions to participate in knowledge production.

Some of the participants in this study described the idea of peers as resources, which aligns with the constructivist learning model. In the interviews, they described group assignments and turning to peers for clarification, and the participants took the initiative to form study groups, even when not required by the course. They also emphasized that peer interaction was an important part of their learning experience. One example from the teleconference observations demonstrated participants leading their own discussion within the physical

classroom.[94] It seemed that although participants believed peer interaction was important, it may not have been a regular feature of teleconference sessions or tutorial sessions. Administrators discussed the desire to build more autonomy into the distance learning program and develop "a culture of learning." Lesson design and constructivist learning environments that support more interaction will address this goal. During the observations of teleconference and tutorial sessions, the discussions were instructor-centered. Learner-centered discussion may be a novel experience for most participants and require the reconceptualizing of the student's role in the learning process.

Conceptualizations about Learning and the Role of Learners

Although instructional technology challenges assumptions about when and where learning takes place, a question remains concerning the degree to which the technology dictates the instructional methodology and learning process. To what degree does a current theory or trend such as "constructivism" or "student-centered learning," shape how technology is applied in education? Socio-historical context is a factor when examining such questions in relation to learner ecologies. Formal education in the Western hemisphere was based on the Socratic model of dialectics, and advanced theories in cognitive and behavioral psychology called into question assumptions about how individuals learn. The application of theoretical frameworks based in socio-anthropology also calls into question assumptions about how the social or cultural environment impacts or shapes learning and the learning process.

British colonial education in the Caribbean left a legacy of lecture-based, exam-orientated instructional methodology. Memorization and following top-down rules and structure were privileged over experimentation and discussion. Altbach (1987) pointed out that during the 19th

[94] Please refer to Chapter IV (Research Findings) Teleconference Observation Excerpt #2.

century, British institutions "did not emphasize research," which subsequently established a model for universities in Commonwealth countries at that time (p. 20). Richard Andrews (2007), professor of Educational Studies at the University of York, explains that in the 19th century, argumentation (in contrast with expository writing) faded from English and Welsh university curricula (pp. 3-4). This model also may have influenced the orientation of Eastern Caribbean education of that period. Over time, these legacies left an imprint on contemporary education.

This study addressed the idea of a "culture of learning," meaning a departure from the traditional lecture-based model.

> For distance education to truly become a process in which students take responsibility for their learning, our culture of learning has to change.... Even at the lower levels of the educational system, in primary and secondary schools, students are being encouraged to do independent individual research and group projects. At the university level, our distance education students are being told time and time again that they must take more and more responsibility for their own learning. The message is getting through if for no other reason than that the tutorial support system has been severely curtailed. A positive outcome of this is that we are seeing more student groups springing up. It is certainly a most healthy trend to observe adults cooperating with each other in the learning process. (Osoba, 2001, p. 55)

The blended mode was designed with the intention of creating an institutional culture of student-directed, independent learning, but participants initially found it challenging to break away from the lecture-based style: the University had one conceptualization of the participants' role as learners and the process of "learning," while the participants had been inculcated in a different, and somewhat opposing, conceptualization of their role as learners and the learning process. The participants reacted to the phasing out of in-person tutorials in much the same way as they are currently reacting to the imminent transition to online instruction:

> It has been the experience of resident tutors throughout the non-campus territories that their distance education students are very dependent emotionally on the use of a tutor. Even in instances where the course is designed to be self-instructional, as much of the distance education material now is, students still "crave" and plead for tutorial support. Similarly, they are generally dissatisfied with the new trend in teleconferencing adopted

> by the UWIDEC.[95] The system is now used, not so much to teach or instruct, but to monitor the students' progress in following the material in the print packages they are given for each course and to iron out any administrative difficulties they may be experiencing with the delivery of the course. (There are exceptions to this: some courses, for example those in the new Bachelor in Education degree programme started in...1999/00, are still heavily dependent on lectures delivered by faculty on the Mona campus.) It should be noted that for all programmes, local tutorials are still offered by university-approved local tutors, but the number of tutorials per course has been reduced in proportion to the amount of self-instructional materials made available to students. (Osoba, 2001, p. 55)

Distance Learning Research

Distance learning research poses a challenge for ethnography because of the concept of space—identifying the site (or sites) of the learning environment—and raises several methodological questions: Is the distance learning environment the individual physical classrooms or the composite of several classrooms? In distance learning research, what is the unit of study? To what extent does the participants' physical location impact and shape a distance learning environment? Is ethnography helpful in studying distance learning within a regional institution, where the lecturers and content are established in one area and disseminated to other parts of the network? Does the teleconferencing system foster a greater sense of regional identity?

The study of distance learning challenges the idea of the classroom as the sole unit of study and of "space" as singular and fixed. Information technology has created the opportunity for Eastern Caribbean countries—and economically developing countries in general—to participate in generating and disseminating information which challenges the "center-periphery" relationship that Altbach (1987) observed just a few years earlier, when the opportunity for academic publishing from within economically developing countries was severely limited.[96] This

[95] University of the West Indies Distance Education Centre central administration in Barbados.
[96] Please see Chapter II (Literature Review).

study of the University of the West Indies distance program in Antigua and Dominica attempted to demonstrate how research on the learner ecologies of distance learning participants challenges the concept of "space" as singular and fixed, and explored the idea that technology is not inherently changing education; rather, our perceptions and conceptualizations about learning shape how instructional technology is experienced in distance learning. The discussion also addressed the study of distance learning in relation to the current discourse on globalization—particularly the concept of center-periphery relationships—in the field of comparative education.

Conclusion

The purpose of examining the two sites—Antigua and Dominica—was to gain a general understanding of Open Campus countries (formerly called Non-Campus Countries or NCCs) in the distance program. While each site in the network is different, Antigua provides a point of comparison for larger countries in the network (excluding the countries with campuses – Jamaica, Barbados, and Trinidad and Tobago), while Dominica is comparable to most of the less economically developed countries within the network. This study explained the context of these sites in relation to factors in the learner ecologies. Some factors may be generalizable across Open Campus sites in the Eastern Caribbean, because of commonalities in history, social and economic development, resources, and infrastructure. The study suggests that the concept of learner ecologies is helpful for distinguishing differences and commonalities across sites.

This study provided a snapshot of the interstitial period during which the University of the West Indies' distance program was transitioning from a blended-mode program, to delivery exclusively online. Based on a small data set, the study attempted to create a profile of distance learners by examining integral facets of their ecologies: space, time, resources, participant interaction and collaboration, and learners' conceptualizations of their role in the learning

process. Spatial distance and terrain are significant factors impacting learner ecologies in economically developing countries, where poor infrastructure and limited transportation can pose obstacles to accessing schools and universities. While online delivery may eliminate distance as a barrier, access to affordable Internet technology remains an obstacle, particularly in rural areas. The study discussed "space" in terms of the globalizing potential of technology and new types of learning environments; the University of the West Indies and its participants value curricula with a "Caribbean focus," and distance learning facilitates academic exchange between students and instructors in dispersed Eastern Caribbean countries. At the same time, this opportunity for academic exchange raises questions about how such institutions will balance local relevance with a commitment to providing a globalized education. Does a distance program's point of origin impact or shape the learner's experience?

The study also addressed the social constructions of "time," and time in relation to the life cycle. In this study, life cycle was an important aspect of the participants' demographic and ecologies. A significant point raised in the findings was that the participants were not defining the "convenience" of distance learning in terms of obviating travel, but in terms of managing obligations, particularly work and family; they defined "convenience" in relation to "time" rather than space and distance.

In learner ecologies, time may also be examined in terms of how it was experienced through the technology applied in learners' communications and interactions. The dual-mode system in this study encompassed both asynchronous and synchronous[97] interaction and communication. The participants expressed their perception of synchronous learning as superior in terms of an interactive learning experience, but when observed during the data collection, the level and effectiveness of interactivity varied across synchronous (i.e., teleconference)

[97] Please refer to the Definition of Terms section of Chapter I (Introduction).

environments. The on-topic discussions within the physical classroom were valid and effective, but not shared with the dispersed classroom community at large. Although the participants were unassertive about contributing to the "virtual" classroom discussion, they intuitively recognized the value of classroom communities as a resource. As well, the quality of the technology and the lesson design are paramount to building an effectively interactive classroom community.

As the "technology gap" lingers, some economically developing countries will continue using teleconferencing and radio to disseminate distance learning programs.[98] The value of studying a program that is in a transition is that it highlights some foundational ideas about the distance learning experience. What can be learned about the blended system that will be of relevance going forward? The concept of learner ecologies is simple; it provides a way to discuss distance learning holistically. This project was a meta-analysis of a methodology and a framework for analyzing and discussing distance learning environments.

The majority of distance learners in this study were mid-career professionals in education and business, and some were recognized in their fields. This particular demographic brings advanced skill sets to the classroom, such as work experience, practical knowledge of their field, and personal histories of academic success within a system where few students become eligible for tertiary education. The distance learner demographic varies across institutions and countries, particularly in economically developing regions of the world; in other such programs, participants have less work experience, less experience in library research, and less experience using new technology.

Further research is necessary to develop programs that can effectively support rural

[98] In Latin America, the television-based program *Telesecundaria* became hugely successful and remains so today. In Haiti, FONHEP (Fondation Haïtienne de l' Enseignement Privé) has successfully been using radio-based education. The use of television and radio to disseminate educational programs is particularly significant in countries with low literacy rates.

dwellers and at-risk or non-traditional populations such as school-leavers. Particularly in economically developing countries, distance learning has the capacity to reinforce or redress inequities, and the study of learner ecologies allows a more comprehensive understanding of the roles of cultural capital and social distance.

Limitations of the Research

The main limitation of this study was that the data represented a small percentage of the distance learner population of the two sites (Antigua and Dominica), bringing into question how representative it is of the population as a whole. The small data set was the result of a short period of time spent in the field, which is also problematic, because studying a program and institution with which the researcher has no direct affiliation requires sufficient time to establish a presence in the institution's community, as well as in the capital cities of Roseau and St. John's. As a result, the study applied tools used in ethnographic research, but the product itself is not an ethnography.

The research tools appeared to work effectively in terms of extracting explicit and implicit information about learner ecologies, but bias in the self-selection of the respondents for the survey data is a consideration because students may have chosen to participate under any number of unarticulated assumptions—for example, anticipation that the research may result in improving conditions at their DEC. The survey itself could be further refined: the close-ended Likert-scaled questions provided quantifiable data, but the usefulness of these data is limited because of the small data set.

The responses "sometimes" and "usually" (etc.) on the surveys should have been defined for the user because this language is too subjective. Also, the usefulness of qualifying the responses ("strongly agree," "agree," "disagree," "strongly disagree," etc.) is not clear. The open-

ended questions on the survey provided an opportunity for the respondents to elaborate, and these data were most useful for comparison with interview and observation data as common themes emerged. However, the study inferred the participants' conceptualizations of their role as learners when questions addressing conceptualizations could have been posed more directly.

The observation data were valuable for addressing questions concerning learner ecologies, but informal interactions such as study groups were not observed, and observations of tutorial sessions were not as detailed as the teleconference observations; therefore, it was not possible to compare data from these sessions in depth. The formal and informal environments where the participants meet and interact are key to addressing the question of interaction in learner ecologies, so this was a significant limitation. The small number of observations is also problematic because, although the groups observed were diverse in terms of size, academic subject, and varying degrees of student interaction and participation, the observations represent a small percentage of all of the sessions over the course of the academic year. The outcomes reported in the study could be coincidental, depending upon the particular dynamics of the group or the particular time in the academic year when the observation took place.

The study originally began with a focus on migration, but this research problem became secondary as the inquiry progressed. The question itself became less significant in the context of these two particular sites, because the target population for the program seemed to be those less likely and less able to leave their countries. (They were working full-time and often single heads of family.) The study also touched upon the question of who migrates for education purposes, and who does not, in terms of gender and household, but could address socio-economic status more explicitly. This migration question may become more relevant in the future: for example, if the distance learning program attracts younger students who may not yet have employment and

personal obligations that complicate migration. It is certainly possible that such students could more readily leave their countries upon completing their distance program locally. The question also requires a broader-scaled study because of the inherent challenge of migration studies, combined with the inherent challenges of distance learning research: both involve dispersed populations and possibly several different geographic spaces.

The historical period during which such a question is asked is significant as well: work opportunities (such as the building of the Panama Canal beginning in the 1880s to1914, and the rebuilding of post-World War II Britain from 1948-1962) catalyzed Caribbean migration. In contrast, the global recession beginning in the late 2000s did not offer secure opportunities to entice educated professionals from countries such as Dominica and Antigua to migrate to larger islands within the Caribbean or to North America and Europe.

Most of the data was collected from the participants at the DECs, which excluded data from participants who rarely or never come to the sites. It is also possible that there are participants who studied in the local distance program for a short time and then transferred. The data excluded Dominicans and Antiguans at DECs in other countries, and in the main campus countries. Certainly, locating these participants would be particularly challenging, but the researcher acknowledges that limiting the study to local participants influenced the responses; including other segments of the distance learner population could offer a different understanding of the migration question and a different interpretation of the learner ecologies. Although the data were insufficient to make absolute generalizations they do capture a snapshot of the learner ecologies in two Open Campus sites, but it is unclear how learner ecologies may differ across countries within the Open Campus network. These limitations are further addressed in the next section, in light of recommendations for further study.

Recommendations for Future Research

Antigua and Dominica were chosen for this study because of the researcher's heritage in the geographic area and accessibility of the sites. They were also chosen because they represent a "median" among countries within the Open Campus network, in terms of economic development, resources, and population. A three-country study would have allowed for even greater generalizability, but was not possible given limited time and resources to conduct the fieldwork.

As previously discussed, most of the data was collected at the sites. This sample is likely to differ from a sample that includes participants who do not come to the sites, simply accessing the audio-file of the teleconference and listening to it alone. (The number of participants taking fully online courses was still very small at the time of the study.) The respondents stressed the importance of contact with peers, but a segment of the participants who do not come to the sites could report that interaction is of minimal importance to them, which would be a key difference from the respondents in this study who identified interaction as integral to their learning experiences. The sample in this study also included participants who clearly did not emigrate.

Even though an interview question asked "Do you know anyone who migrated?" it is possible (albeit unlikely) that the researcher could get different results if collecting data at one of the campus countries, because some Antiguan and Dominican participants may have studied in the local distance program for a short time before transferring to a campus country. Future research could include a greater breadth of experiences by finding ways to locate a larger cross-section of former distance learning participants. As the program grows, it could be useful to know how many participants transfer or matriculate to on-campus programs or altogether different institutions, and whether or not they return to countries such as Dominica or Antigua

when their program is finished. During the time of the study, there were no institutional statistics tracking this information.

The study of learner ecologies entails understanding experiences, conceptualizations, and social environments, which makes ethnography an ideal methodological approach for this type of study. The project would be greatly enhanced if carried out as a full ethnographic study in order to address conceptual questions about applying ethnographic methodologies to the research of distance learning environments. Further research is necessary to understand the parameters of ethnography when applied to distance learning research. In this particular study of a "blended learning" environment, two social experiences were of concern: the individual students' learner ecologies, and the social experience of the class community. The class community encompasses both a physical space and dispersed, intangible spaces (referred to here as "virtual" space).

In the near future, the class community will encompass a virtual space online, and future research should consider what is lost or gained in terms of effective learning once the program fully transitions. In terms of social distance, will the transition broaden the gap for prospective students who may not have access to adequate technology or may not have the requisite computer skills? Will the transition to online course delivery increase or decrease, accessibility for different types of learners or for those with particular learning disabilities? In this study, the respondents suggested that the "culture" of the full campuses of the University of the West Indies differs from that of the local Distance Education Centres. Going forward, will the "culture" of an online Open Campus differ from that of the physical campus? Will the learning experience itself be different, and is that important?

The researcher was not able to gain access to the online courses, but this is not a major limitation because, at the time, there were only a few online participants. Some form of

observation of the online learning environment, such as monitoring Web-based discussion boards or synchronous online discussions, will be an important part of future research about this, and similar programs. Another consideration is that although the distance course instructor is both a participant and part of the ecologies this study focused on the learner ecologies of students, and their perspectives. Future research could provide a more comprehensive understanding of distance learner ecologies by including or focusing on course instructors. This study also alluded to teacher training in relation to student-centered, constructivist pedagogy. Because many of the Education students in the distance program were also professional teachers or education administrators, future research on how (or whether) their distance learning experiences reflexively influence their teaching practice is an important consideration.

The study collected information about family background and participants' educational and professional goals. The original research design had planned for individual interviews focusing on educational history, from which the researcher could trace influences and goals. This would have been helpful in fleshing out the learner ecologies, understanding what brought the participants to this program, identifying the expected trajectory for the participants, and perhaps even illuminating reasons behind the well-known gender gap in educational attainment. For example, in "*Families and Communities as Educators,"* Leichter (1978) discusses the value of network mapping—tracing the educational encounters of individuals from one setting to another (p. 599). Network mapping could be applied in future research of distance learner ecologies in order to better understand the trajectory of this demographics' educational experience as well as observing, in practice, the concept of peer support (an aspect of "resources") in distance learning.

This study discussed the issue of forming classroom communities in a distance learning environment, and there are diverse perspectives about what constitutes a "classroom community"

or a “school community.” Future research should address how participants' associations with different communities may overlap those within the university. In small countries, it is possible that classmates know each other or know of each other's families. Do these relationships bring virtual learning communities “closer” together?

Another area of interest to education research in the Caribbean region is the well-known gender gap in educational attainment. This study touched upon this issue because of its prominence, and described different perspectives and experiences related to gender, but a full investigation of the possible cause of this disparity was beyond the scope of the project. Current studies suggest that reasons explaining an increasingly larger percentage of female students completing secondary and tertiary education, compared with a diminishing percentage of male students completing these levels of formal education, may vary between Eastern Caribbean countries. A similar, rapidly growing disparity in the United States and United Kingdom, particularly among low socio-economic status males, suggests the need for more comparative, cross-cultural studies. For example, further research is necessary to understand whether development programs and non-governmental organization initiatives aimed at women in economically developing areas (known as Women in Development, or WID programs) successfully raised educational attainment for females while neglecting low socio-economic status males.

Of particular interest as well in the study of distance learning in small-island developing states is the discussion of center-periphery dynamics and globalization. The discussion can be furthered by research that includes describing how user-generated content sites and online communities are changing narratives about community and “development.” Globalization and computer technology has changed the types of work available in different fields and different

parts of the world. Some of these industries such as *informatics* (high-tech data entry), for various reasons, overtly exercise preference for hiring women rather than men (Freeman, 2000, p.10). In economically developing countries, to what extent do such practices impact men's decisions about education, and the types of work they pursue? The convergence of these factors means that researching reasons impacting gender and educational attainment could be country-specific (and perhaps culture-specific).Thoroughly addressing this issue in the context of Dominica and Antigua at this time was beyond the purview of this study, but it is an important area for future research, particularly in relation to distance learning and learner ecologies.

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GLOSSARY

A.D.: Associate Degree.

B.Sc.: Bachelor of Science.

CARICOM: Caribbean Community.

CDB: Caribbean Development Bank.

CXC: Caribbean Examinations Council.

DEC: Distance Education Centre. The main, administrative center for university-wide coordination of the distance learning program. It is located on the UWI's Barbados campus. The 42 sites throughout the distance learning program network are also called DECs.

GDP: Gross Domestic Product.

GNI: Gross National Income.

ICQ: Instant messaging program.

M.B.A.: Master of Business Administration.

M.B.Ed.: Master of Business Education.

M.Ed.: Master of Education.

M.Sc.: Master of Science.

NCCs: Non-Campus Countries. Currently known as "Open Campus" countries. These countries have local Distance Education Centres.

OECS: Organization of Eastern Caribbean States.

UCWI: University College of the West Indies.

UWI: University of the West Indies.

UWIDEC: University of the West Indies Distance Education Centre. The name was changed to Open Campus.

UWIDITE: University of the West Indies Distance Teaching Enterprise. The name was originally University of the West Indies Distance Teaching Experiment.

WDB: World Wide Web-based Discussion Board.

XCD: Eastern Caribbean Dollar ($EC)

APPENDIX A

Survey Results

Survey Item #2: What parish do you live in now?

Antiguan Participants' Commute to DEC Survey Item #2 What parish do you live in now?			
Parish	Distance in kilometers	Percentage of respondents	N = 61
St. John's	0 - 3	44%	29
St. George's	7.7	19%	13
St. Mary's	9.9	15%	9
St. Peter	11.6	7%	4
St. Paul	12.7	7%	4
St. Phillip	22.5	4%	2
No response	*	4%	2

Dominican Participants' Commute to DEC Survey Item #2 What parish do you live in now?			
Parish	Distance in kilometers	Percentage of respondents	N = 96
St. George's/St. Ann (Roseau)	0 - 3	40%	37
St. Paul	13.2	23%	22
St. Patrick	30.4	9%	9
St. David	24.6	7%	7
St. Andrew	57.3	6%	8
St. Joseph	23.4	4%	4
St. Mark	14.6	4%	4
St. Luke's	6.6	4%	4
No response	*	4%	4

Survey Item #3: Growing up, who lived in your household?

Survey Item #3: Growing up, who lived in your household? Please indicate below the highest level of education attained by each household member, to the best of your knowledge. Please add to the relationship column as need (i.e., grandmother, cousin, etc.)		
Results for Survey Item #3	Antigua n = 61	Dominica n = 96
Dual households	81%	70%
Female-headed households	12%	26%
Male-headed households	7%	4%

Survey Item #3: Education Level of Household Members

Results for Survey Item #3: Growing up, who lived in your household? To your knowledge, what is the highest level of education they have reached? Please add to the "relationship" column as needed (i.e., grandmother, cousin, etc.).				
Parents and Guardians	Antigua		Dominica	
	Female (n = 61)	Male (n = 60)	Female (n = 96)	Male (n = 85)
Primary	39%	33%	85%	68%
Secondary	43%	38%	10%	13%
Professional Certificate	13%	19%	4%	3%
Associates Degree	0	4%	0	5%
Bachelor's Degree	0	0	0	5%
Masters Degree	0	0	0	3%
Not Sure	0	5%	0	3%

Survey Item #4: Where did you attend primary school?
Survey Item #5: Where did you attend secondary school?

List of Antiguan Primary and Secondary Schools Attended by Participants			
Primary School		Secondary School	
Urling's	Public	Princess Margaret	Public
Foundation Mixed	Private	Christ the King	Private
T.N. Kirnon	Public	Clare Hall	Public
Swetes Village	Public	Antigua Grammar School	Public
Holy Family	Private	All Saints	Public
Antigua Girls' High School	Public	Antigua Girls' High School	Public
Greenbay	Public	Ottos Comprehensive	Public
St. Michael's	Private	St. Joseph's Academy	Private
John Hughes	Public	Jennings	Public
Five Islands	Public	School in Trinidad & Tobago	Private
Potters	Public		
Jennings	Public		
St. John's Catholic	Private		
School in Trinidad & Tobago	Private		

Survey Item #4: Where did you attend primary school?
Survey Item #5: Where did you attend secondary school?

List of Dominican Primary and Secondary Schools Attended by Respondents			
Primary School		Secondary School	
St. Luke's (Catholic)	Private	St Mary's	Private
Mahaut Government Primary	Public	Isiah Thomas	Public
St. Martin's	Public	Roseau	Public
St. John's	Private	Convent High School	Private
Marigot Junior	Public	Seventh Day Adventist	Private
Goodwill	Public	St. Andrews	Private
Vieille Case	Public	St. Joseph	Public
Salisbury	Public	Goodwill	Public
Castle Bruce	Public	Wesley	Private
Mixed School	Private	Dominica Grammar School	Public
Massacre	Public	Grand Bay	Public
Roseau	Public		
Delices	Public		
Campbell Government	Public		

Survey Item #9: Why did you choose the distance learning programme or course/s instead of a face-to-face programme or course/s?

Results for Survey Item #9: Why did you choose the distance learning programme or course/s instead of a face-to-face programme or course/s?														
	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		N/A		DR	
	%		%		%		%		%		%		%	
	A	D	A	D	A	D	A	D	A	D	A	D	A	D
It's more convenient than face-to-face.	36	18.7	13.6	20.8	4	12.5	18	27	18	20.8	9	0	4	0
I prefer distance learning.	38	24	28.5	28.8	19	28.8	0	13	0	2.2	14	2.2	0	0
I have family obligations.	5	12	5	6	10	10	25	26.5	50	40.8	5	4	13	0
I work full-time.	0	9.8	4	0	0	1.9	28.5	21.5	66.6	64.7	0	1.9	8.6	0
It's more affordable than other options.	5	12.7	15	0	20	19	30	25.5	25	40	5	2	15	0
Because I received a scholarship.	16.6	32.5	5.5	11.6	5.5	4.6	0	0	27.7	0	44	51	16.6	0
If given a choice between taking a course online or via teleconfer-enced sessions, I prefer taking the course online.	28.5	23	14	17	33	23	19	17	0	17	4	2	8.6	0
A = Antigua; D = Dominica; N/A = Not Applicable; DR = Did not Respond Antigua: n = 61/ Dominica n = 96														

Survey Item #11: Have you ever considered studying at another UWI campus?

Results for Survey Item #11: Have you ever considered studying at another UWI campus? If yes, why did you study in Antigua/Dominica instead?	
Antigua	Dominica
• Yes, Mona and I will continue there. • Yes, I have. I decided to stay and pay my way through UWI instead of the parents paying. • "Right at home and will not feel advantages by host students" • "Funds were not readily available to go to the UWI campus" • "1) Because of cost 2) Not getting time off from job" • "I decided to stay and pay my way through UWI instead of the parents paying" • "If it was not for the scholarship I would never do another degree." • Yes, however it was more convenient to do so because of work and family obligations. • Barbados. Because I can work and study at the same time. • Yes. I also work to support myself. That's the main reason. • Yes. For out of convenience and cost.	• The cost of going to another campus was a major deterrent. • Yes. Because of convenience and the reasons above (affordable; scholarship) • Yes. Family obligation and funding • Yes, Because of my son and my convenience • Yes. It more affordable. • Yes. It's cheaper to remain here. • Yes. It is being part funded by my work place. • Yes. I choose Dominica because I live there and it's more convenient for me because of my responsibilities. • Yes – Trinidad, cost. • Yes. Barbados to finish quicker • Yes. However, since I believe that it is not necessary to take a loan I decided to study by distance. • Yes. Dominica offers the first two levels of my courses • Studying in Dominica was my second option. • Yes. Barbados. Less expensive studying at home. • Yes, due to financial constraints • Yes, but after considering work options and family obligations I decided to study in Dominica • Yes. I applied to UWI to do the course on campus, but there was no response. So I did it in Dominica. • It's not possible to study full time on UWI campus because of family obligations and my work. • To reduce cost. • Because it's more economical • Financial • Convenience, cost. • No, Family commitments. Lack of financial resources • Less costly and convenience of being at home and working • More convenient.

Survey Item #12: Have you ever considered other college or university distance learning programmes?

Results for Survey Item #12: Have you ever considered other college or university distance learning programmes? If yes, which ones? Why did you choose UWI, Antigua instead?	
Antigua	Dominica
• University of Toronto • University of Phoenix • Skidmore. UWI was affordable at the time. • Skidmore. UWI Antigua is cheaper and credible and accessible.	• Yes. At the time UWI was the main option available. • Yes. A recognized one in the states; (*Why Dominica instead?)* for the reasons mentioned above (family obligation;funding) • Yes. In Cuba. • Yes. They did not offer a degree in education long distance • University of Phoenix. (UWI) More convenient, cheaper and course could not be done online • Yes, University of the Virgin Islands. Convenience • Midwestern; more convenient; financial • I chose UWI because the programmes offered here ranges from a variety of different courses which one could choose from. • Because their certificates are accepted and recognised. • Because UWI is the only available distance centre located on island • I considered studying in Oklahoma, however being a teacher in my country has forced me to remain here to do part of my studies. • It is the only university with a branch or office/site in Dominica. • Convenience for me.

Survey Item #14: What is/are your current occupation/s?

Survey Item #14: What is/are your current occupation/s?			
Occupation	Antigua n = 61	Occupation	Dominica n =96
Teacher or School Counselor	35%	Teacher	60%
Clerical or Accountant	19%	Principal	4%
Civil Servant	15%	Librarian/Library Asst.	2%
Service Sector/ Semi-professional	12%	Clerical	11%
Nurse	7%	Corporate Sector	9%
Other	12%	Service Sector/ Semi-professional	8%
		Not working	2%
		Other	4%

Survey Item #16: How is the distance education degree/certification, or training regarded by employers in your field?

Results for Survey Item #16: To your knowledge, how is the distance education degree/certification, or training regarded by employers in your field?		
	Antigua n = 61	Dominica n = 96
Highly regarded.	39%	37.7%
Well regarded.	39%	30%
No difference.	18%	9.4%
Not well regarded.	4%	16.9%
Did Not Respond	0	3.7%
Other	0	1.8%

Survey Item # 18: How respondents in Antigua address questions concerning course content

Results for Survey Item # 18: Please check one response for each of the following statements: "When I have questions concerning course content, I…					
Antigua	Always	Usually	Sometimes	Rarely	Never
ask a classmate.	9%	36%	41%	14%	0
ask someone in my field of study.	4.5%	36%	27%	27%	4.5%
ask the course Instructor first.	13%	22%	35%	26%	4%
ask the Resident Tutor first.	4.5%	4.5%	23%	27%	41%
research the question online.	9.5%	19%	33%	5%	33%
research the question using the library.	5%	5%	14%	9.5%	67%
research the question using another resource.	14%	23%	41%	14%	9%
n = 61					

Survey Item # 18: How respondents in Dominica address questions concerning course content

Results for Survey Item # 18: Please check one response for each of the following statements: "When I have questions concerning course content, I…					
Dominica	Always	Usually	Sometimes	Rarely	Never
ask a classmate.	11.7%	41%	37%	5.8%	3.9%
ask someone in my field of study.	6%	26.5%	44.8%	20%	2%
ask the course Instructor first.	11.7%	15.6%	29%	35%	5.8%
ask the Resident Tutor first.	0	6%	10%	12%	63%
research the question online.	15.6%	27%	39%	11.7%	5.8%
research the question using the library.	6%	16%	34%	26%	18%
research the question using another resource.	11.7%	13.7%	39%	25%	7.8%
n = 96					

Survey Item # 19: Please check one response for each statement concerning your future plans**.**

Results for Survey Item # 19: Please check one response for each statement concerning your future plans.							
Antigua (n = 61)	SD	D	N	A	SA	N/A	DR
I'm studying in the distance learning programme so that I can pursue a career overseas.	38.4%	30.7%	15.3%	0	3.8%	3.8%	7.6%
I'm studying in the distance learning programme so that I have the option of pursuing a career overseas.	34.6%	23%	19.2%	7.6%	7.6%	0	7.6%
I have no interest in working overseas at this time.	19.2%	7.6%	15.3%	34.6%	15.3%	3.8%	3.8%
I would prefer to work overseas, but it's difficult too obtain a visa.	30.7%	38.4%	3.8%	7.6%	0	11.5%	7.6%
If I were to work overseas, I would prefer to work in the Caribbean region.	11.5%	19.2%	19.2%	15.3%	19.2%	7.6%	7.6%
Dominica (n = 96)	SD	D	N	A	SA	N/A	DR
I'm studying in the distance learning programme so that I can pursue a career overseas.	11%	16.9%	33.9%	16.9%	9.4%	3.7%	7.5%
I'm studying in the distance learning programme so that I have the option of pursuing a career overseas.	7.4%	3.7%	20%	37%	25.9%	1.8%	3.7%
I have no interest in working overseas at this time.	18.8%	18.8%	24.5%	16.6%	5.5%	3.7%	11%
I would prefer to work overseas, but it's difficult too obtain a visa.	18.8%	35.8%	16.9%	5.6%	3.7%	7.5%	11%
If I were to work overseas, I would prefer to work in the Caribbean region.	5.6%	1.8%	26.4%	22.6%	30%	3.7%	9.4%
SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree; N/A = Not Applicable; DR = Did Not Respond							

APPENDIX B

University of the West Indies Distance Education Programme Survey

This survey asks about your experience as a distance learner, and your future plans. The survey consists of 19 questions, and may take approximately 30 minutes to complete. You may attach additional pages. Please return completed surveys to Elizabeth Beaubrun c/o the UWI Continuing Studies office by: Friday, February 16th.

Thanks for your participation!

Background

Item #1 Female Male

What year were you born?

How many people are in your household? □ Married □ Single Head-of-household

Item #2: What parish do you live in now?

Item#3: Growing up, who lived in your household? To your knowledge, what is the highest level of education they have reached? Please add to the "relationship" column as needed (i.e., grandmother, cousin, etc.).

√	Relation-Ship	Primary	Second-ary 1-3	Second-ary 4 – 6	Associate Degree	Pro-fessional Certificate	Bachelors Degree	Post-Graduate Diploma	Higher Degree	Other	Not Sure
	Mother										
	Father										
	Sister										
	Sister										
	Brother										
	Brother										

Education

Item #4: Where did you attend primary school? _____ private public

Item #5: Where did you attend secondary school?_____ private public

Item #6: Are you enrolled in a programme at UWI? If yes, which programme and what diploma or certificate are you pursuing?

Item #7: What distance learning course/s have you enrolled in at University of the West Indies, Antigua, including courses you are taking now?

Item #8: When did you begin your studies, or first enroll, at UWI (month/year)?

Item #9: Why did you choose the distance learning programme or course/s instead of a face-to-face programme or course/s? Please check one response for each statement.

	Strongly Disagree	Dis-agree	Neutral	Agree	Strongly Agree	N/A
It's more convenient than face-to-face.						
I prefer distance learning.						
I have family obligations.						
I work full-time.						
It's more affordable than other options.						
Because I received a scholarship						
If given a choice between taking a course online or via teleconferenced sessions, I prefer taking the course online.						

Item #10: Is there another reason why you chose distance learning instead of face-to-face? (Please explain):

Item #11: Have you ever considered studying at another UWI campus? If yes, why did you study in Antigua instead?

Item #12: Have you ever considered other college or university distance learning programmes? If yes, which ones? Why did you choose UWI, Antigua instead?

Item #13: How are you financing your study at UWI? (Please check all that apply)

I'm paying for it myself.	
Student Loan.	
Scholarship	
My employer is paying.	
Other (Please explain):	

Please check one response for the following statement:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
"If I hadn't received a scholarship, I would not have enrolled in my programme, or course/s."						

Employment and Career

Item #14: What is/are your current occupation/s?

Item #15: Do you plan, or hope, to change your current occupation? If yes, to what occupation?

Item #16: To your knowledge, how is the distance education degree/certification or training regarded by employers in your field?

Highly regarded	
Well regarded	
No difference compared to face-to-face	
Not well regarded	

The Distance Learning Experience

Item #17: Aside from technical problems, what aspects of distance learning did you find difficult?

	Strongly Disagree	Dis-agree	Neutral	Agree	Strongly Agree	N/A
Studying independently.						
Getting answers to my questions.						
Availability of textbooks/course packets						
Understanding the course content						
Availability of library resources						
Group projects						
Time management						
Attending teleconferenced sessions						
Attending tutorials						

Item #18: Please check one response for each of the following statements:

	Always	Usually	Some-times	Rarely	Never	N/A
When I have questions concerning course content, I ask a classmate.						
When I have questions concerning course content, I ask someone in my field of study.						
When I have questions concerning course content, I ask the course instructor first.						
When I have questions concerning course content, I ask the resident tutor first.						
When I have questions concerning course content, I research the question online.						
When I have questions concerning course content, I research the question using the library.						
When I have questions concerning course content, I research the question using another resource.						

Item #19: Please check one response (Strongly Agree; Disagree; Neutral; Agree; Strongly Agree; or Not Applicable/Doesn't Apply) for each statement concerning your future plans.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
I'm studying in the distance learning programme so that I can pursue a career overseas.						
I'm studying in the distance learning programme so that I have the option of pursuing a career overseas.						
I have no interest in working overseas at this time						
I would prefer to work overseas, but it's difficult to obtain a visa.						
If I were to work overseas, I would prefer to work in the Caribbean region.						

Item #20: Any additional comments about your programme, or the distance learning experience in general?

APPENDIX C

Interview Protocol

University of the West Indies Distance Education Programme Interview

- This interview asks about schooling, work, and your future plans.
- It consists of 33 questions, and may take approximately 30-45 minutes
- It is confidential; your name and identifying information will be removed
- If at any time you would like to decline from answering, you are free to do so.

- Interview ID
- Date and time

Background

Item #1: □ Male □ Female

What year were you born?
How many people are in your household? □ Married □ Single Head-of-household

Item #2: What parish do you live in now?
In what parish were you born?

Item#3: Growing up, who lived in your household? To your knowledge, what is the highest level of education they have reached? What was/were their job or jobs?

Education

Item #4: Where did you attend primary and secondary school?
Item #5: Were these private or public schools?

Item #6: Are you enrolled in a programme? If yes, which programme and what diploma or certificate are you pursuing?

Item #7: What distance learning course/s have you completed? (Include courses you are taking now.)

Item #8: When did you begin your studies (month/year)?

Item #9: Why did you choose the distance learning course/s?

Item #10 and #11: Have you ever considered studying at a UWI campus? Why did you study in Antigua/Dominica instead?

Item #12: Have you ever considered other college or university distance learning programmes?

Item #13: How do you finance your courses or program? Scholarship? Financial Aid? Loan?

Employment and Career

Item #14: What is/are your current occupation/s? What do consider your main career or occupation?

Item #15: Do you plan, or hope, to change your current occupation? (If so, to what occupation)?

Item #16: To your knowledge, how is the distance education degree/certification or training regarded by employers in your field compared to face-to-face programmes? (Please explain.)

The Distance Learning Experience

Item #17: Was learning via distance education a different experience for you? (Explain) Aside from technical problems, what aspects of distance learning did you find challenging? Is it different from what you expected?

[For Teachers]: How long have you been teaching and at what grade levels?

[For Teachers] What teaching strategies did you observe in your course/s? (For example, group projects; group discussion, etc.) Are these strategies applicable in your classroom? (Please explain)

[For Teachers]: Are there particular skills or ideas from your distance learning course/s that you can apply in your classroom? Are you currently applying these skills or ideas? (Please explain)

[For Teachers]: In what ways is distance learning an effective or ineffective way of teaching? (Please explain)

[For Teachers]: In what ways is distance learning impacting your field? (Please explain)

In your opinion, what kind of impact would distance education have on Antigua? In 5 years? In 10 years?

In your opinion, would distance education cause people emigrate in search of opportunities?

The population is reaching higher levels of education. In your opinion, is there any impact on the job market?

Plans

Item #19: Do you plan to stay in Antigua after completing your studies at UWI? (If you are a former student, did you plan to stay in Antigua after completing your studies at UWI?) (Please explain.)

Do you plan, or hope, to leave Antigua at some time in the future? Is this decision related to your studies or career? Do you plan, or hope, to return? (Please explain.)

Is obtaining a visa a concern when you consider leaving?

Do you know of any classmates who left, or planned to leave Antigua after finishing the program? (Please explain.)

Any additional comments about your programme, or the distance learning experience in general?

Can you recommend 2 or 3 current or former distance learners who might be interested in being interviewed?

May I contact you again?

APPENDIX D

Population Data

Employment in Antigua and Barbuda

Employment in Antigua and Barbuda			
Occupation	Male	Female	Total
Legislators, Sr. Officials and Managers	1.3%	.9%	1.1%
Professional	4.8%	5%	4.9%
Technical and Associate Professional	6.3%	6.8%	6.5%
Clerks	2.2%	10%	9.2%
Service and Retail	7.2%	10%	9.2%
Skilled Agriculture, Forestry and Fishery	.3%	.07%	.2%
Crafts and Related Fields	22.7%	3.7%	12.4%
Plant and Machine Operation	1.9%	.2%	1%
Elementary (Unskilled)	2.2%	1.7%	1.9%
Not Applicable	50.7%	60%	55.7%
Source: Antigua and Barbuda Ministry of Finance, National Statistics Division, Census 2001			

Employment in Dominica

Employment in Dominica			
Occupation	Male	Female	Total
Legislators, Sr. Officials and Managers	4.8%	9.8%	6.8%
Professional	3.3%	4.2%	3.7%
Technical and Associate Professional	7.4%	15.3%	10.5%
Clerks	3.4%	19%	9.6%
Service and Retail	9.7%	19.7%	13.7%
Skilled Agriculture, Forestry and Fishery	25.1%	6.7%	17.8%
Crafts and Related Fields	24.1%	5.6%	16.8%
Plant and Machine Operation	8.2%	.8%	5.3%
Elementary (Unskilled)	13.8%	18.8%	15.8%
Not Stated	.1%	0%	.1%
Source: Dominica Ministry of Finance, Statistics Division, 2001 Population and Housing Census of Dominica			

Internet Usage 2000-2006

Internet Usage 2000 - 2006			
	2000	2002	2006
Antigua	5000	10,000	29,000
Dominica	2000	12,500	20,500
Source: United Nations Department of Economic and Social Affairs, 2007			

University of the West Indies Distance Education Centre Enrollment

University of the West Indies Distance Education Centre Enrollment				
	Dominica		Antigua	
Year	Female	Male	Female	Male
1996-1997	14	5	12	2
1997-1998	58	11	50	6
1998-1999	27	5	66	5
1999-2000	130	30	93	11
2000-2001	164	40	109	19
2001-2002	163	38	106	17
2002-2003	183	33	88	76
Source: University of the West Indies Statistics Office, Unpublished Statistics				

Antigua and Barbuda Total Number of Tertiary Students

Antigua and Barbuda Total Number of Tertiary Students		
Male	562	35.13%
Female	1,038	64.87%
Total	1,600	--
Source: Scholarship Department, Board of Education, Antigua & Barbuda 2006		

Antigua and Barbuda Scholarships Awarded 1995-2006

Antigua and Barbuda Scholarships Awarded 1995 - 2006	
Awards	Number
1995/96 and 1996/97	229
1997/98 and 1998/99	211
1999/00 and 2000/01	320
2001/02 and 2002/03	204
2003/04 and 2004/05	271
2005/06 and 2006/07	373
Total	1,600
Source: Board of Education, Antigua & Barbuda 2006, Scholarship Department.	

Antigua and Barbuda Categories of Scholarship Awardees

Antigua and Barbuda Categories of Scholarship Awardees (1-12 years)		
Antigua & Barbuda International Institute of Technology (ABIIT)		15
Barbudans		15
Caribbean Development Bank Scholarships		7
Civil Servants (CSF-32)		401
Centre for Management Development Students:	3	28
Antigua Public Utilities Authority	7	
Civil Servants	18	
Private Sector		
Cuban Students		197
Island Scholars		15
Non-Regional (Sports & Games – 28)		321
Regional (not including UWI)		92
UWI Students		509
Total		1,600
Source: Board of Education, Antigua & Barbuda 2006, Scholarship Dept.		

Antigua and Barbuda Categories of Students in 2006

Antigua and Barbuda Categories of Students in 2006	
ABIIT	9
Board Funded	17
Civil Servants	105
Cuban Students	109
Excellence Awards	3
Island Scholars (2 UWI)	5
Regional	19
Non-Regional	95
UHSA, Antigua School of Medicine	1
UWI Students (37 Civil Servants)	89
Source: Board of Education, Antigua & Barbuda 2006, Scholarship Department.	

Antigua and Barbuda, Number of Students in Caribbean Universities/Colleges in 2006

Antigua and Barbuda, Number of Students in Caribbean Universities/Colleges in 2006		
ABIIT		19
Antigua (branch of UWI)		197
Bahamas (branch of UWI)		15
Barbados (other than UWI)		7
Cuba		202
Guyana		7
Jamaica (other than UWI)		89
Trinidad (other than UWI)		
UWI:		
Cave Hill	332	
St. Augustine	52	
Mona	98	482
University of the Virgin Islands – St. Thomas		12
Other		14
Source: Board of Education, Antigua & Barbuda 2006, Scholarship Department.		

Antigua and Barbuda, Number of Students in Foreign Universities/Colleges in 2006

Antigua and Barbuda, Number of Students in Foreign Universities/Colleges in 2006	
Canada	70
England – U.K., Israel	94
U.S.A. (throughout 115 U.S. Universities and 1 Mexico)	351
Unknown	6
Source: Board of Education, Antigua & Barbuda 2006, Scholarship Department.	

Antigua and Barbuda Funds Allocated to Scholarships 1995 - 2006

Antigua and Barbuda Funds Allocated to Scholarships 1995-2006 (in millions)				
Scholarships	Grants	Econ. Cost	Short Course	Total
1995/96	3.177	3.284	.073	6.534
1997/98	5.95	8.073	.159	14.182
1999/00	3.614	2.729	.085	6.428
2001/02	4.828	2.40	.007	7.235
2003/04	2.858	2.782	.399	6.039
2005/06	1.577	1.22	.0925	3.1725
2006/07	1.465	.749	.054	2.464
Total	23.469	21.237	1.3485	46.0545
Source: Board of Education, Antigua & Barbuda 2006, Scholarship Department.				

2005 Common Entrance and Junior Secondary Examination Passes for Antigua

Common Entrance Examination Passes for Antigua 2005		
Male	Female	Total
421	553	974
Junior Secondary Examination Passes for Antigua 2005		
Male	Female	Total
93	107	200
Source: Antigua & Barbuda Ministry of Education, 2005		

Common Entrance Examination Results for Dominica 1984-1993

Common Entrance Examination Results for Dominica 1984-1993							
	Examinees		Entered Secondary School		Passed Exam		
Year	Male	Female	Male	Female	Male	Female	Total
1984/85	958	1,324	235	314	24.5%	23.7%	24.1%
1985/86	873	1,198	206	320	23.6%	26.7%	25.4%
1986/87	889	1,173	210	323	23.6%	27.5%	25.8%
1987/88	843	1,132	200	328	23.7%	29%	26.7%
1988/89	762	960	244	317	32%	33%	32.6%
1989/90	862	950	217	343	25.2%	36.1%	30.9%
1990/91	858	949	329	415	38.3%	43.7%	41.2%
1991/92	987	1,024	316	427	32%	41.7%	36.9%
1992/93	978	1,030	289	420	29.6%	40.8%	35.3%
Source: Commonwealth of Dominica, Education Statistics, 1994							

Highest Certificate, Diploma, Degree Earned for Dominica 2001

Highest Certificate, Diploma, or Degree Earned, Dominica 2001			
Award	Male	Female	Total
School Leaving	1,408	1,852	3,260
Cambridge School Certificate	53	82	135
GCE ‘O’ Levels or CXC	1,839	3,038	4,877
High School Diploma/Certificate	320	482	802
GCE ‘A’ Levels	288	473	761
Undergraduate Diploma	144	126	270
Other Diploma/Certificate	907	773	1,680
Associate Degree	91	113	204
Professional Certificate	350	464	814
Bachelors Degree	444	384	828
Post Graduate Diploma	80	70	150
Masters or Doctoral	246	165	411
Other	114	137	251
None/Not Applicable	27,597	25,329	52,926
Not Stated	668	598	1,266
Source: Dominica Ministry of Finance, Statistics Division, 2001 Population and Housing Census of Dominica			

Highest Certificate, Diploma, or Degree Earned, Antigua, 2001

Highest Certificate, Diploma, or Degree Earned, Antigua, 2001			
Award	Male	Female	Total
School Leaving	7,169	8,602	15,771
Cambridge School Certificate	152	256	408
GCE 'O' Levels or CXC	2,646	4,087	6,734
High School Diploma/Certificate	1,364	1,873	3,237
GCE 'A' Levels	306	453	758
Undergraduate Diploma	226	325	551
Other Diploma/Certificate	1,639	2,375	4,014
Associate Degree	216	284	500
Professional Certificate	917	1,288	2,206
Bachelors Degree	722	803	1,525
Post Graduate Diploma	142	129	271
Masters or Doctoral	314	181	495
Other	438	612	1,050
None	18,090	17,869	35,959
Not Stated	976	848	1,824
Not Applicable	790	793	1,583
Source: 2001 Population and Housing Census of Antigua & Barbuda			

Repetition Rates for Primary School Students in Dominica

Repetition Rates for Primary School Students in Dominica									
	1996			1997			1998		
Grade	Male	Female	Total	Male	Female	Total	Male	Female	Total
K	86	44	130	104	47	151	66	41	107
1	35	8	43	38	21	59	12	12	24
2	46	9	55	32	14	46	12	15	27
3	34	14	48	26	7	33	12	5	17
4	31	12	43	19	11	30	17	10	27
5	15	7	22	27	14	41	16	1	17
6	170	191	361	134	133	267	101	119	220
7	14	8	22	8	0	8	2	0	2
8	8	12	20	1	4	5	3	0	3
9	24	11	35	28	13	41	7	2	9
Total	463	316	779	417	264	681	248	205	453
Source: UNESCO, Education For All Assessment Reports, Dominica, 2000									
Dominica Repetition Rates for Primary School Students in Percentages									
	1996			1997			1998		
Grade	Male	Female	Total	Male	Female	Total	Male	Female	Total
K	9	5.3	7.3	10.5	5.5	8.2	6.8	4.6	5.7
1	3.8	1	2.4	4.4	2.6	3.5	1.4	1.5	1.4
2	5.8	1.1	3.4	3.4	1.7	2.6	1.4	1.9	1.7
3	3.9	1.7	2.8	3.4	.9	2.1	1.3	.6	1
4	3.9	1.6	2.7	2.3	1.4	1.8	2.3	1.2	1.7
5	1.8	.9	1.3	3.5	5.6	2.7	2	.1	1.1
6	16.7	14.4	16.5	13.3	12.7	13	11.1	12.5	11.8
7	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--	--
9	4.1	3.9	4	3.3	2.2	2.9	1.1	.3	.8
Total	6.3	4.6	5.4	5.7	4	4.9	3.5	3.2	3.3
Source: UNESCO, Education For All Assessment Reports, Dominica, 2000									

Repetition Rates for Secondary School Students in Dominica

Dominica Repetition Rates for Secondary School Students in Dominica						
Academic Year	Male		Female		Total	
1989/90	97	7.5%	138	7%	235	7.2%
1990/91	145	10.5%	161	8.6%	306	9.2%
1991/92	231	16.9%	169	9.1%	400	12.4%
1992/93	193	10.3%	175	6.6%	368	8.1%
1993/94	212	11.1%	172	6.5%	384	8.5%
1994/95	237	12.4%	177	6.9%	414	9.2%
1995/96	203	10.6%	219	8.4%	422	9.4%
1996/97	266	13.5%	174	6.4%	440	9.4%
1997/98	270	13.1%	177	6.2%	447	9.1%
1998/99	300	13%	242	7.7%	542	9.9%
Source: UNESCO, Education For All Assessment Reports, Dominica, 2000						

Dropout Rates for Secondary School Students in Dominica

Dropout Rates for Secondary School Students in Dominica						
Academic Year	Male		Female		Total	
1989/90	63	4.6%	46	2.3%	109	3.3%
1990/91	66	4.8%	52	2.8%	118	3.7%
1991/92	32	1.7%	62	2.3%	94	2.1%
1992/93	29	1.5%	33	1.3%	62	1.4%
1993/94	68	3.5%	74	2.9%	142	3.2%
1994/95	100	5.2%	77	3%	177	3.9%
1995/96	63	3.2%	56	2%	119	2.5%
1996/97	60	2.9%	50	1.7%	110	2.2%
1997/98	87	3.8%	64	2%	151	2.8%
Source: UNESCO, Education For All Assessment Reports, Dominica, 2000						

Part I. Income Levels in Dominica by Gender

Income Levels of Dominican Women (W) and Men (M) Age 15+ (in $XCD per month)								
	Legislators, Sr. Officials & Managers		Professional		Technical Associate Professional		Service/ Retail	
	W	M	W	M	W	M	W	M
$0 - $99	7	2	0	0	4	3	0	0
$100 - $299	52	15	1	2	23	11	11	6
$300 - $499	84	24	4	7	57	10	74	12
$500 - $799	117	42	9	15	79	35	244	31
$800 - $999	72	35	4	8	45	54	178	27
$1K - $1,299	80	57	14	18	89	76	222	58
$1,300 - $1,499	57	50	13	14	259	164	363	103
$1,500 - $1,799	49	44	22	26	187	136	199	64
$1,800 - $1,999	24	22	12	15	119	89	108	27
$2K - $2,499	66	60	53	42	263	157	181	61
$2,500 - $2,999	47	37	90	51	199	105	99	22
$3K - $3,999	50	45	53	46	60	87	53	25
$4K - over	128	186	112	190	74	103	42	37
Not Stated	137	123	23	61	52	78	104	49
Source: Dominica Ministry of Finance, 2007 (Unpublished)								

Part II. Income Levels in Dominica by Gender

Income Levels of Dominican Women (W) and Men (M) Age 15+ (in $XCD per month)											
		Skilled Agriculture, Forestry & Fishery		Crafts & Related Fields		Plant & Machine Operation		Elementary (Unskilled)		Not Stated	
	$0 - $99	W	M	W	M	W	M	W	M	W	M
	$100 - $299	15	3	15	26	0	5	49	48	0	0
	$300 - $499	149	24	64	91	3	21	227	155	1	3
	$500 - $799	290	68	116	192	12	65	510	313	0	0
	$800 - $999	531	174	122	483	12	118	493	557	0	2
	$1K - $1,299	294	198	72	503	16	157	194	331	0	0
	$1,300 - $1,499	215	184	34	496	11	180	129	197	0	1
	$1,500 - $1,799	127	156	25	472	10	169	46	133	0	0
	$1,800 - $1,999	71	119	18	421	2	109	36	72	0	1
	$2K - $2,499	32	57	8	164	1	55	8	27	0	0
	$2,500 - $2,999	45	158	6	208	3	104	10	19	0	0
	$3K - $3,999	14	124	1	94	1	57	3	25	0	0
	$4K - over	7	54	4	67	0	27	0	9	0	0
	Not Stated	13	43	2	74	0	68	3	14	0	1
	$0 - $99	124	111	69	347	5	128	115	146	3	6
Source: Dominica Ministry of Finance, 2007 (Unpublished)											

Antigua and Barbuda/Dominica Population Marital Status

Marital Status of Adults Ages 15+		
Status	Antigua & Barbuda	Dominica
Legally married	28.7%	28.2%
Common law marriage	12%	12.6%
Visiting partner	12%	9.2%
Divorced	1.9%	Male = 1% Female = 1.2%
Separated	2.4%	.4%
Single	37%	34%
Source: Antigua and Barbuda Population Census 2001, Ministry of Finance, Statistics Division; Dominica Ministry of Finance, Statistics Division, 2001 Population and Housing Census of Dominica		

Antigua and Barbuda/Dominica Population Single Heads of Household by Gender

Single Heads of Household by Gender						
Antigua and Barbuda				Dominica		
Female	Male	Total		Female	Male	Total
43% (10,666)	57% (13,872)	24,538		37% (8,230)	63% (14,129)	22,359
Source: Antigua and Barbuda Ministry of Finance, Statistics Division, Population Census 2001				Source: Dominica Ministry of Finance, Statistics Division, 2001 Population and Housing Census of Dominica		

Antiguan Heads of Household by Gender and Size of Household

Antiguan Heads of Household by Gender and Size of Household													
	Number of people per household												
	Total	1	2	3	4	5	6	7	8	9	10	11	12+
Female	8,880	1,873	1,913	1,842	1,329	813	494	275	152	95	30	25	39
Male	11,557	3,168	2,168	1,963	1,821	1,236	631	285	152	68	35	12	18
Total	20,437	5,041	4,081	3,805	3,150	2,049	1,125	560	304	163	65	37	57
Source: Antigua & Barbuda Population and Housing Census 2001													

Dominican Heads of Household by Gender and Size of Household

Dominican Heads of Household by Gender and Size of Household													
	Number of people per household												
	Total	1	2	3	4	5	6	7	8	9	10	11	12+
Female	8,260	1,696	1,897	1,542	1,263	777	518	256	158	80	39	21	13
Male	14,099	4,787	2,491	1,856	1,782	1,425	883	454	209	117	39	25	31
Total	22,359	6,483	4,388	3,398	3,045	2,202	1,401	710	367	197	78	46	44
Source: 2001 Dominica Ministry of Finance, Statistics Division, 2001 Population and Housing Census of Dominica													

Antigua and Barbuda/Dominica Employment Status 2000-2001

Employment Status	Male	Female	Male	Female
Employed	71.5%	59.9%	62.7%	41.6%
Employed but did not work	.3%	.1%	--	--
Looked for work	5.5%	.5%	6.6%	3.9%
Wanted work	.75%	.64%	2.1%	1.1%
Home duties	1.7%	13%	4.5%	26.8%
Attended school	8.7%	9%	9.7%	10.7%
Retired	6.7%	7.4%	8.9%	11%
Disabled/unable to work	1.2%	1.5%	3.8%	4%
Other/Not Stated	--	--	1.7%	.9%
Source: Antigua and Barbuda Ministry of Finance, National Statistics Division, Population and Housing Census 2001; Dominica Ministry of Finance, Statistics Division, 2001 Population and Housing Census of Dominica				